Journal
of the **AMERICAN PHARMACEUTICAL ASSOCIATION**

Practical Pharmacy Edition

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American Pharmaceutical Association

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This Journal is the official monthly publication of the AMERICAN PHARMACEUTICAL ASSOCIATION, dedicated to the elevation and unification of the profession of Pharmacy through communication of authoritative, scientific, professional, and cultural information. It is devoted to the education of pharmaceutical practitioners, and it functions as the professional voice of Pharmacy, which is directed to all members of the profession of Pharmacy in education, government, industry, and professional practice.

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Thanks to George Washington University for the picture on page 351.

The JOURNAL of the AMERICAN PHARMACEUTICAL ASSOCIATION is published semimonthly by the AMERICAN PHARMACEUTICAL ASSOCIATION as a *Scientific Edition* and a *Practical Pharmacy Edition.*

Offices—*Editorial, Advertising and Subscription Offices:* 2215 Constitution Avenue, N.W., Washington 7, D.C. *Publication Office:* 20th and Northampton Streets, Easton, Pennsylvania.

Annual Subscription—United States and foreign, *Practical Pharmacy Edition* $10.00, *Scientific Edition* $15.00, both editions $20.00. Subscription rates are subject to change without notice. Members of the AMERICAN PHARMACEUTICAL ASSOCIATION receive the *Practical Pharmacy Edition* each month as a part of their annual APhA membership dues, and may subscribe to the *Scientific Edition* at the special rate of $2.00. Single copies—*Practical Pharmacy Edition* $1.00, *Scientific Edition* $1.50.

Claims—Missing numbers will not be supplied if claims are received more than 60 days after the date of the issue, or if loss was due to failure to give notice of change of address. The ASSOCIATION cannot accept responsibility for foreign delivery when its records indicate shipment has been made.

Change of Address—Members and subscribers should notify at once both the Post Office and the AMERICAN PHARMACEUTICAL ASSOCIATION, 2215 Constitution Avenue, N.W., Washington 7, D.C. of any change of address. Second class postage paid at Easton, Pa., and additional mailing offices. Issued 24 times a year; *Scientific Edition* monthly on the 20th and *Practical Pharmacy Edition* monthly on the 10th.

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Calendar of Events

JUNE

5–7 North Dakota Pharmaceutical Assn. annual convention, Bismarck, N.D.
5–7 Wyoming Pharmaceutical Assn. annual convention, Casper, Wyo.
5–9 Assn. of Food and Drug Officials of U.S. meeting, Baker Hotel, Dallas, Tex.
6–8 Colorado Pharmacal Assn. annual convention, Antlers Hotel, Colorado Springs, Colo.
6–8 Michigan State Pharmaceutical Assn. annual convention, Statler-Hilton Hotel, Detroit, Mich.
9–11 Manufacturing Chemists' Assn. annual meeting, Greenbrier Hotel, White Sulphur Springs, W.Va.
9–12 American Therapeutic Soc., Barcelona Hotel, Miami Beach, Fla.
1–12 American Diabetes Assn., Hotel Deauville, Miami Beach, Fla.
12–14 Washington State Pharmaceutical Assn. annual convention, Davenport Hotel, Spokane, Wash.
12–15 National Industrial Pharmaceutical Research Conference (University of Wisconsin Extension Services in Pharmacy), Land O'Lakes, Wis.
12–17 Pharmaceutical Soc. of the State of New York annual convention, Saranac Inn, Upper Saranac Lake, N.Y.
13–15 Mississippi State Pharmaceutical Assn. annual convention, Edgewater Gulf Hotel, Edgewater Park, Miss.
13–16 Tennessee Pharmaceutical Assn. convention, Gatlinburg, Tenn.
13–17 American Medical Assn. annual meeting, Miami Beach, Fla.
19–21 Connecticut Pharmaceutical Assn. summer convention, Banner Lodge, Moodus, Conn.
19–21 Delaware Pharmaceutical Soc. annual convention, Shelburne Hotel, Atlantic City, N.J.
19–21 Massachusetts Pharmaceutical Assn. annual convention, New Ocean House, Swampscott, Mass.
19–21 Oregon State Pharmaceutical Assn. annual convention, Hotel Umpqua, Roseburg, Ore.
19–21 South Dakota Pharmaceutical Assn. annual convention, Alonzo-Ward Hotel, Aberdeen, S.D.
19–22 South Carolina Pharmaceutical Assn. annual convention, Hotel Wade Hampton, Columbia, S.C.
19–22 Virginia Pharmaceutical Assn. annual convention, Cavalier Hotel, Virginia Beach, Va.
19–23 New Jersey Pharmaceutical Assn. annual convention, Hotel Traymore, Atlantic City, N.J.
20–22 Louisiana State Pharmaceutical Assn. annual convention, Fontainbleau Motel, New Orleans, La.
21–23 Alabama Pharmaceutical Assn. annual convention, Thomas Jefferson Hotel, Birmingham, Ala.
21–23 Indiana Pharmaceutical Assn. annual convention, French Lick-Sheraton Hotel, French Lick, Ind.
22–24 District of Columbia Pharmaceutical Assn. annual convention, Commander Hotel, Ocean City, Md.
24 Parenteral Drug Assn., Inc., scientific meeting, Edgewater Beach Hotel, Chicago, Ill.
25–27 Montana State Pharmaceutical Assn. annual convention, Northern Hotel, Billings, Mont.
26–28 Rhode Island Pharmaceutical Assn. annual convention, Mayflower Hotel, Plymouth, Mass.
27–30 Idaho Pharmaceutical Assn. annual convention, Shore Lodge, McCall, Idaho
27–30 Maryland Pharmaceutical Assn. annual convention, Shelburne Hotel, Atlantic City, N.J.
27–30 Toilet Goods Assn. annual meeting, Poland Spring House, Poland Spring, Me.
30–Jul. 2 American Society of Pharmacognosy annual meeting, Univ. of Colorado College of Pharmacy, Boulder, Colo.

JULY

3–9 American Assn. of Colleges of Pharmacy annual convention and Teachers Seminar, College of Pharmacy, Univ. of Colorado, Boulder, Colo.
24–27 Pennsylvania Pharmaceutical Assn. annual convention, Pittsburgh Hilton Hotel, Pittsburgh, Pa.
25–27 Kentucky Pharmaceutical Assn. annual convention, French Lick-Sheraton Hotel, French Lick, Ind.
25–27 Texas Pharmaceutical Assn. annual convention and exhibit, Municipal Auditorium, Austin, Tex.

AUGUST

14–19 American Pharmaceutical Assn. annual convention, Shoreham and Sheraton-Park Hotels, Washington, D.C.
15–18 American Veterinary Medical Assn. annual meeting, Denver Hilton Hotel, Denver, Colo.
21–24 West Virginia State Pharmaceutical Assn. annual convention, The Greenbrier, White Sulphur Springs, W.Va.
27–Sept. 1 American Hospital Assn., Civic Auditorium, San Francisco, Calif.

SEPTEMBER

1–30 Child Foot Health Month
7 New York Cosmetic Chemists meeting, Hotel New Yorker, New York, N.Y.
11–16 American Chemical Soc. annual meeting, New York, N.Y.
12–14 Pharmaceutical Manufacturers' Assn., international section, The Greenbrier, White Sulphur Springs, W.Va.
13–15 Chemical Exposition U.S.A., Statler-Hilton Hotel, New York, N.Y.
13–15 National Cancer Conference (American Cancer Soc. and National Cancer Institute), Minneapolis, Minn.
15–18 Drug, Chemical and Allied Trades Assn. annual meeting, Sagamore Hotel, Bolton Landing, N.Y.
18–20 New Hampshire Pharmaceutical Assn. annual meeting, Lake Tarleton Club, Pike, N.H.
18–21 Maine Pharmaceutical Assn. annual meeting, Poland Spring House, Poland Spring, Me.
18–21 Federal Wholesale Druggists' Assn. annual convention, The Greenbrier, White Sulphur Springs, W.Va.
25–27 Pharmaceutical Council of Greater New York, drug and cosmetic show, New York Trade Show Building, New York, N.Y.

OCTOBER

2–4 Wisconsin Pharmaceutical Assn. annual convention, Schroeder Hotel, Milwaukee, Wis.
2–8 National Pharmacy Week
3–5 Associated Chain Drug Stores meeting, Waldorf-Astoria Hotel, New York, N.Y.
5–7 Pharmaceutical Manufacturers' Assn., biological section, The Roosevelt, New Orleans, La.
7 National Assn. of Chain Drug Stores—pharmaceutical manufacturers-chain drug executives meeting, Waldorf-Astoria Hotel, New York, N.Y.
10–12 Congress on Industrial Health, Hotel Charlotte, Charlotte, N.C.
14–20 National Wholesale Druggists' Assn. annual meeting, Americana Hotel, Bal Harbour, Fla.
16–18 District No. 3, NABP-AACP, meeting, Hotel Wade Hampton, Columbia, S.C.
16–19 Pharmaceutical Manufacturers' Assn., financial section, Boca Raton Hotel and Club, Boca Raton, Fla.
16–19 Pharmaceutical Manufacturers' Assn., public relations section, The Greenbrier, White Sulphur Springs, W.Va.
17–21 National Safety Congress and Exposition (National Safety Council), Conrad Hilton Hotel, Chicago, Ill.
18 American Assn. of Poison Control Centers meeting, Palmer House, Chicago, Ill.
19–21 Parenteral Drug Assn. annual convention, Statler Hotel, New York, N.Y.
21–25 American Heart Assn. annual meeting, Jefferson Hotel-Keel Auditorium, St. Louis, Mo.
23–27 National Assn. of Retail Druggists' annual convention, Municipal Auditorium, Denver, Colo.
24–25 National Assn. of Chain Drug Stores, control and methods council meeting, Vanderbilt Hotel, New York, N.Y.
25–26 Pharmaceutical Manufacturers' Assn., pharmaceutical contact section, Washington Hotel, Washington, D.C.
30–Nov. 4 American School Health Assn. meeting, San Francisco, Calif.
31–Nov. 2 Assn. of Military Surgeons of the U.S. meeting, Mayflower Hotel, Washington, D.C.
31–Nov. 2 Packaging Institute annual forum, Statler-Hilton Hotel, New York, N.Y.
31–Nov. 4 American Public Health Assn. annual meeting, Civic Center, San Francisco, Calif.

NOVEMBER

13–19 Diabetes Week
14–16 Pharmaceutical Manufacturers' Assn., research and development section, The Cloister, Sea Island, Ga.
28–Dec. 2 American Medical Assn. clinical meeting, Statler Hotel, Washington, D.C.
30 Toilet Goods Assn., scientific section, Waldorf-Astoria Hotel, New York, N.Y.

DECEMBER

2 Pan American Health Day
5–6 National Social Welfare Assembly annual meeting, New York, N.Y.
5–7 Pharmaceutical Manufacturers' Assn., eastern regional meeting, Waldorf-Astoria Hotel, New York, N.Y.
6–7 National Social Welfare Assembly, National Committee on the Aging, annual meeting, New York, N.Y.
12–14 Pharmaceutical Manufacturers' Assn. midyear meeting, Waldorf-Astoria Hotel, New York, N.Y.

INTERNATIONAL

AUGUST

28–Sept. 2 18th General Assembly of International Pharmaceutical Federation, Copenhagen, Denmark

SEPTEMBER

5–9 British Pharmaceutical Conference, Newcastle-on-Tyne, England
15–22 World Medical Assn. meeting, Berlin-Hilton Hotel, West Berlin, Germany

NOVEMBER

12–19 5th Pan-American Congress of Pharmacy and Biochemistry, Santiago, Chile

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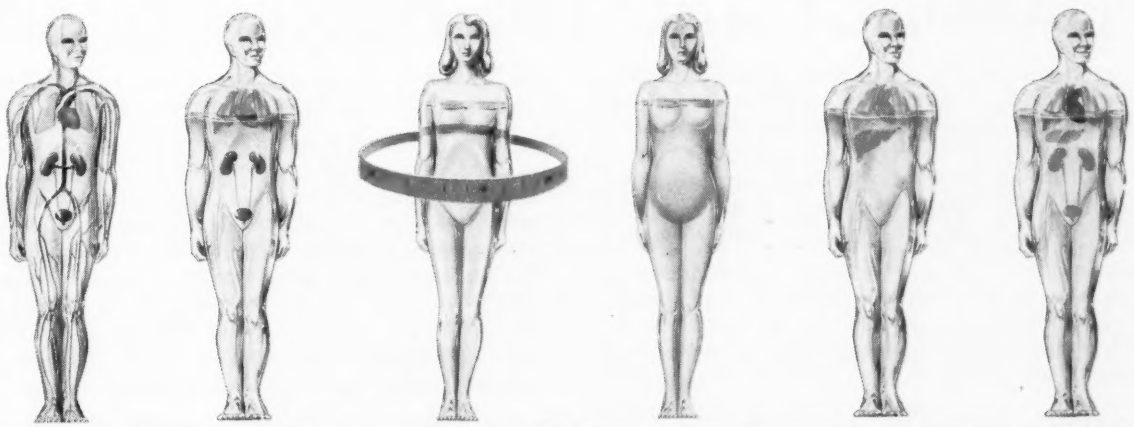
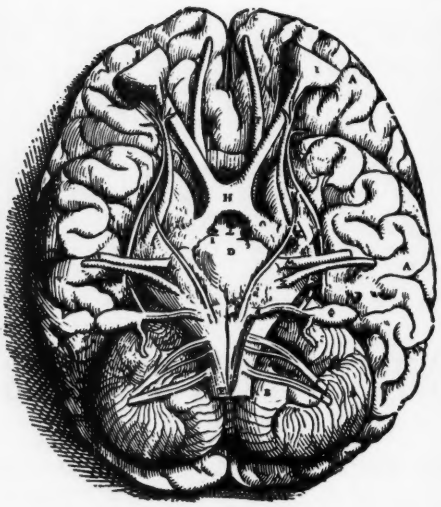


HYPERTENSION **CONGESTIVE FAILURE** PREMENSTRUAL TENSION **EDEMA OF PREGNANCY** CIRRHOSIS WITH ASCITES **RENAL EDEMA**



PHARMACY AND THE HUMAN BRAIN

In the development of psychopharmaceuticals, a field in which S.K.F. is the industry leader, we see a clear example of a fundamental fact. Modern pharmaceutical research does not merely outmode one compound in favor of another but brings whole new aspects of human suffering within range of drug therapy. Research creates not merely different prescriptions but new ones.

Today, when a customer hands you a prescription and says, "The doctor prescribed this for my nervousness," the prescription probably calls for one of the new psychopharmaceuticals. A few years ago, no doctor could have written that prescription, and no pharmacist could have filled it. Chemicals which selectively alter the activity of the brain had not yet been discovered.

With Thorazine*, Compazine* and Stelazine*, S.K.F. has played a major role in the birth and growth of this new prescription market. Enough is now known about the brain to give promise of many more as yet undiscovered compounds with psychotherapeutic value. The application of pharmacy to the human brain will continue at S.K.F. as part of a broad research program which can help make the 1960's the most active decade in the history of pharmacy.

*Trademarks for chlorpromazine, prochlorperazine and trifluoperazine respectively

SMITH KLINE & FRENCH LABORATORIES, PHILADELPHIA 1

a timely review

medical care for the aged—The 86th Congress has been deluged with numerous bills that seek to provide some type of medical care insurance for the elderly and retired. In view of the upcoming presidential election, heavy pressure is being applied by various groups to enact legislation in this area. The professions of medicine, dentistry, pharmacy, and other allied health fields have repeatedly indicated their opposition to legislation which would lead to socialized medicine. The implications have been made clear that once we embark on this path for even a segment of the population, then the bars would be down for further legislation in the future to cover more and more of the population. Of the four major legislative proposals currently under consideration, two provide for financing by increasing Social Security taxes and the other two measures provide for federal-state participation.

At press time, executive hearings were being held daily on such proposals by the House ways and means committee, chairmanned by Representative Wilbur D. Mills (D-Ark.). The staff of the committee is reportedly in the process of preparing a committee compromise bill along the lines of a scaled down version of the administration's plan. In the meanwhile Representative Burr P. Harrison (D-Va.), a member of this committee, has urged that action on all proposed federal health benefit plans for the aged be deferred until the next Congress convenes in January, 1961 and that, in the meantime, the House ways and means committee conduct an exhaustive study of the various proposals during the Congressional recess this summer and fall.

Following are summaries of four major proposals under consideration:

health insurance for the aged act

Introduced: By Senator Jacob J. Javits (R-N.Y.) and seven other senators on April 7, 1960 (S. 3350). Referred to committee on labor and public welfare.

Proposal: "To provide a program of federal matching grants to the states to enable the states to provide health insurance for individuals aged 65 or over at subscription charges such individuals can pay."

Who Is Covered: All participating individuals over 65 and their spouses.

Benefits: No specific benefits are described in bill; proponents state that coverage could provide:

Hospitalization—60 days of full-cost semi-private room;
Nursing homes—"equivalent-cost care;"
Home Care—"visiting nurse service;"
Surgery—in or out of hospital;
Laboratory and X-Ray—laboratory tests and diagnostic x-rays
Drugs—prescription drugs included.

Financing: Subscription rate—nothing for participants with income less than $500 a year; 50 cents per month for participants with income $500 to $1,000, increasing to $13 per month for those with incomes over $3,600 per year. Difference between subscription rates and total cost is split between federal government and state on Hill-Burton formula.

Total Cost: Proponents estimate that if as many as 70 percent of the persons eligible subscribe, federal cost would amount to $400 million, but others say it would be more like $1.5 billion.

medicare program for the aged

Introduced: By Secretary of Health, Education, and Welfare, Arthur S. Flemming, before the House ways and means committee on May 4, 1960.

Proposal: To provide a voluntary program of health insurance for persons 65 and over with protection against catastrophic illness.

Who Is Covered: Participating persons aged 65 and over who did not pay an income tax in the preceding year and those whose income from all sources did not exceed $2,500 ($3,800 for a couple).

Benefits: 80 percent (100 percent for public assistance recipients) of the following:
Hospitalization—180 days a year;
Nursing homes—365 days a year;
Home care—365 days a year;
Surgery—surgery, physician's services and dentistry;
Laboratory and X-Ray—up to $200 a year;
Drugs—all prescribed drugs up to $350 a year.

Financing: Basic enrollment fee $24 per year (nothing for public assistance recipients) and payment of first $250 ($400 for a couple) of health and medical expenses. State pays initial $250 for public assistance recipients. If income rises above specified figure for eligibility, fee would be raised on a graduated basis until fee covered full per capita cost of benefits. Optional feature permits eligibile participant to purchase private insurance with 50 percent of cost to be paid from federal-state matching funds up to a maximum of $60.

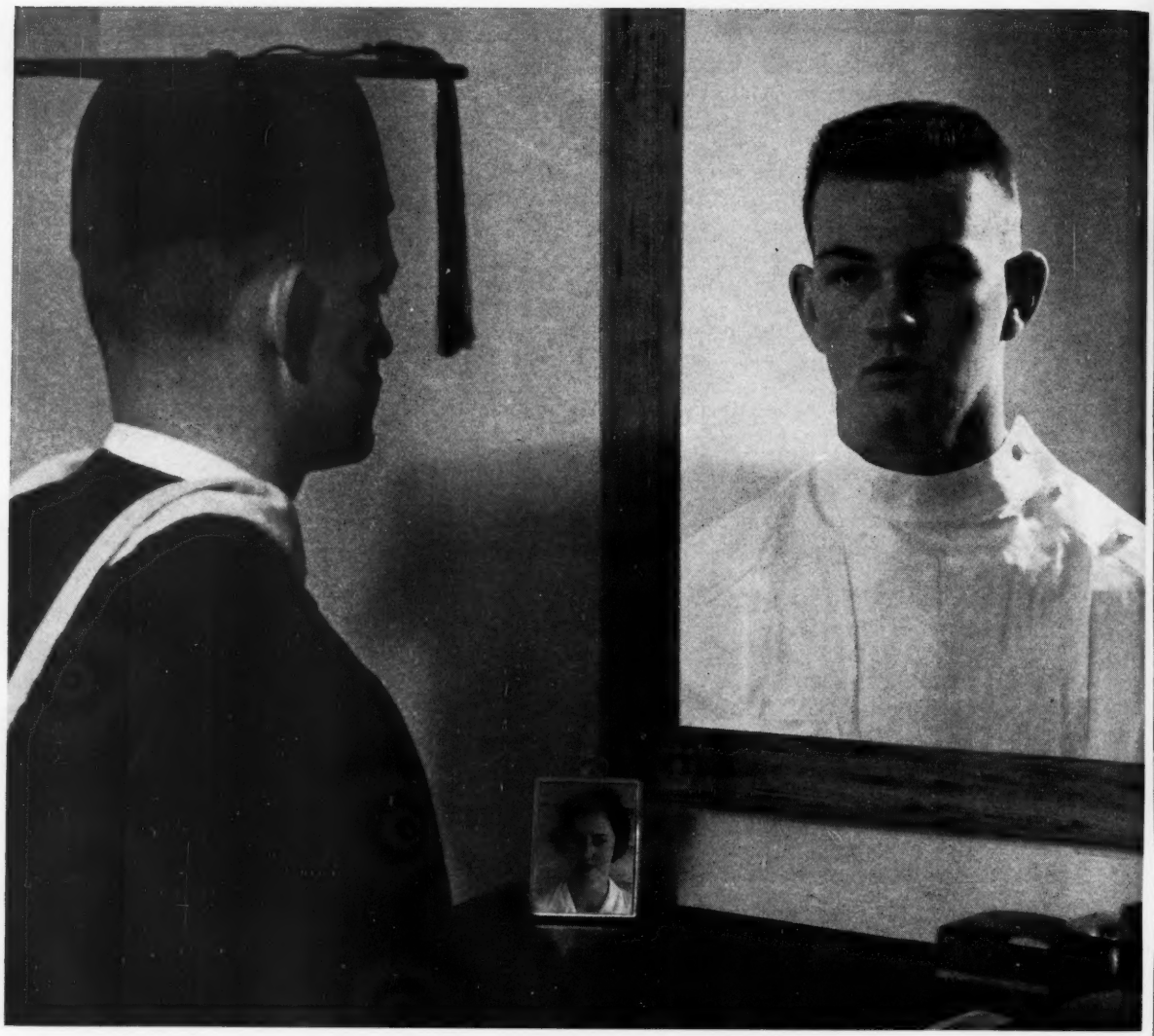
Total Cost: Assuming all states participate and 80 percent of the eligible enroll, proponents estimate that the annual federal-state cost would be $1.2 billion with the federal share being estimated at $600 million. Increase in federal public assistance would be $100 million more.

retired persons medical insurance act

Introduced:	By Senator Patrick V. McNamara (D–Mich.) and 19 other senators on May 6, 1960 (S. 3503). Referred to committee on finance.
Proposal:	"To provide for the payment of hospital and other health services furnished to aged retired individuals."
Who Is Covered:	Retired persons eligible for Social Security benefits and their spouses, old age public assistance recipients and retired men over 65 or women over 62 earning less than $100 monthly for a period of three months.
Benefits:	Hospitalization—90 days a year; Nursing homes—180 days a year; Home care—240 "visits" a year; Surgery—none; Laboratory and X-Ray—both in-patient and out-patients; Drugs—all drugs used in hospital; for outside hospital, a portion as determined by HEW Secretary, when prescribed "generically."
Financing:	Workers and employers pay through higher payroll taxes. For employee—1/4 of 1 percent; for employer—1/4 of 1 percent of first $4,800; 3/8 percent for self-employed; for other retirees, from federal general revenue funds.
Total Cost:	Estimated $1.1 billion for the first year; $1.5 billion annually after that.

social security amendments of 1959

Introduced:	By Representative Aime J. Forand (D–R.I.) on February 18, 1959 (H.R. 4700). Referred to the House ways and means committee; open hearings held in 1959, executive hearings in progress.
Proposal:	"To amend the Social Security Act and the Internal Revenue Code so as to provide insurance against the cost of hospital, nursing home, and surgical service for persons eligible for old-age and survivors insurance benefits."
Who Is Covered:	All persons drawing old-age and survivors' benefits under Social Security, including employed aged and younger dependents.
Benefits:	Hospitalization—60 days a year; Nursing Homes—120 days less the number of days of hospitalization; Home Care—none; Surgery—"non-elective" surgery; Laboratory and X-Ray—only in-hospital patients; Drugs—only drugs used in hospital.
Financing:	Workers and employers pay through higher payroll taxes. For employee—1/4 of 1 percent; for employer—1/4 of 1 percent of first $4,800; for self-employed—3/8 of 1 percent; today's retired person pays nothing.
Total Cost:	Estimated anywhere from $1.1 billion to $2.4 billion for the first year, with future cost even higher.



Looking Ahead...

Opportunities for pharmacy school graduates were never better than they are today. Jobs are plentiful and salaries are at an all-time high . . .

This means that the young graduate on the threshold of his career can get started that much sooner in establishing a niche for himself in his profession and in society.

In building for the future, it is of prime importance that one provide for his and his dependents' *security;* and there is no surer, safer or quicker way than through the medium of life insurance. Life insurance creates an *immediate* estate — often in amounts far greater than one could otherwise save in a whole lifetime.

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Editorial

the 'open' professional fee

The fall-out from the Kefauver hearings is penetrating the very life-blood of pharmacy—its professional service. As anticipated, the hearings have caused state agencies to review their welfare programs for pharmaceutical service.

Pharmacy welcomes such reviews, particularly when it can discuss its professional contributions with an agency and negotiate improvements in a program which will enhance its administrative efficiency and save the taxpayers' money.

However, recent negotiations between agencies responsible for administering state welfare programs and state pharmaceutical associations leave much to be desired by pharmacy. Among the changes being instituted in the programs are provisions requiring the use of the generic name in prescribing drugs, "approved lists" of drugs, arbitrary markups and no professional fees.

One state has spelled out to the penny the actual price it will pay for each of the drugs on the "approved list" and has said that others are to be priced at fair trade, or if the item is not fair-traded, at cost plus 50 percent (a markup of 33⅓ percent). No mention is made of a professional fee in one state and in another the program definitely states no professional fee will be paid.

Such regulations are alarming because they are little short of dictatorial. On the one hand the state tells the doctor what drug he must prescribe—and this is as distasteful to pharmacy as it is to medicine. On the other hand the state refuses to permit the pharmacist to charge a fee for his professional services. Are we to assume from such actions that the practice of pharmacy is not recognized as a profession? Are these actions an example of the kind of interference in professional affairs which we can expect from government participation?

In the past, negotiators for pharmacy have had a tendency to concern themselves first with the adequacy of the markup and have either bartered away the professional fee or included it as a "screened" fee. If dispensing prescriptions is to be recognized by the public as a professional act, it would seem only logical that a professional fee, labeled as such, be part of every prescription price.

But pharmacy has been reluctant to raise the issue of the professional fee. As one authority has noted, "It is unfortunately true that the public considers prescriptions at least in part, as commodities subject to the usual practices of the retail trade."

The absence of any mention of a professional fee in the discussions of prescription prices to the public during the Kefauver hearings and in testimony against H.R. 10597 (D.C. Pharmacy Act) substantiate the "image" pharmacy has created by its own act of omission.

What better opportunity is there for setting the record straight than in negotiations between pharmacists and agencies—government or private—concerning pharmaceutical services for welfare programs. Most of the existing programs provide for a system or schedule of reimbursement which excludes payment for the pharmacists' professional services per se.

Thus the "open" professional fee must be the first order of business in any negotiations—government or private. Pharmacists must impress upon the public, as well as any agent they negotiate with, that in dispensing drugs a pharmacist is giving a professional service and that this service is in no way related to the name or quantity of the drug or its value as a commodity.

Unless pharmacy adopts a pricing method which clearly delineates to the public the difference between the value of the professional service and the value of the physical commodity, the profession forfeits its best opportunity for public appreciation and recognition.

Are the professional services of the pharmacist so ignoble that the pharmacist should hesitate to state their value?

an historic evening

On May 12, 1960, more than 500 leaders in pharmacy gathered in New York City to pay tribute to one of pharmacy's distinguished statesmen—Dr. Robert L. Swain. This "Salute Dinner" honored a man who has devoted a lifetime of dedicated service to his profession as a pharmacist, state health official, board of pharmacy secretary, association leader, educator, journalist, authority on pharmaceutical law.

To the recognition accorded Dr. Swain by a grateful profession, the AMERICAN PHARMACEUTICAL ASSOCIATION adds its collective appreciation, affection and admiration for his brilliant achievments and contributions to the profession.

The "Salute Dinner" was a truly historic event but so was another banquet that same evening some 730 miles away in Indianapolis, Indiana. There 365 talented young people with their teachers gathered at the National Science Fair to receive special awards for the best projects in the health fields. Sponsoring the Health Awards Banquet were the American Medical Association, the American Dental Association, the American Veterinary Association and the APHA.

In making the pharmacy awards (*described on page 347*) President Howard C. Newton told the finalists that the future depends to a considerable extent on them. Visitors to the National Science Fair saw the searching and inventive minds today's youth have. These young people—President Newton pointed out—will create the new marvels of tomorrow in every field of science, including medical and pharmaceutical science.

Take for example the winner of the first place APHA award—Eugene Diveglia, a 17-year old high school senior. He has been conducting research in cancer chemotherapy for the past three years and his general knowledge of the field is amazing. But you will be able to judge better when, as a guest of APHA, he will display his exhibit at the APHA meeting in Washington, D.C., August 14–19.

Youths like Eugene Diveglia will be the scientists of tomorrow and will fill the shoes of our elder statesmen like Dr. "Bob" Swain. The AMERICAN PHARMACEUTICAL ASSOCIATION was priviledged to be represented at both dinners—one paying tribute to a recognized leader of the present generation of pharmacy, the other welcoming the most potential members of the new generation. It was an historic evening.

brand vs. generic name . . .

drug hearings debate question

Members of the Senate anti-trust and monopoly subcommittee rolled up their sleeves on Tuesday, May 10 and set out to find a basis for drafting legislation to require the writing of prescriptions in generic names.

At week's end they appeared to have lost much of their determination to achieve this goal. During the sessions (one day-long and one evening as well as the regularly scheduled morning sessions), the subcommittee heard much conflicting testimony.

In spite of the fog hanging over the deliberations, one thing was clear as the sessions closed late Friday afternoon—the Kefauver staff agrees more authority (and much more money) should be appropriated to Congress, for setting up a more effective system to police the drug industry.

Senator Philip A. Hart (D-Mich.) presided at the hearings in Senator Kefauver's absence. In his opening remarks the Michigan senator said the question most often asked during the inquiry into the drug industry was "What are you going to do about it?"

And, he continued, "the proposal made with the greatest frequency is the writing of prescriptions in generic rather than trade names. By such a step, it is argued, whatever excessive prices and profits exist in the industry would automatically be corrected by the force of free competition."

In a manner typical of the fair way in which he handled the week's proceedings, Hart said more information was needed before legislation could be drafted. In addition, he expressed the hope that answers to such questions as "what does the term 'generic name' really mean?" and "what reasons are advanced against expanding generic name prescriptions?" would come out of the sessions.

lack of regulation blamed

First on the agenda to answer these questions and clear the way to understanding for the committee was Charles O. Wilson, dean of Oregon State College's school of pharmacy. His testimony at first seemed to support the idea of generic prescribing. But it soon became apparent that although he bemoaned the fact that so much confusion exists, he did not think generic prescribing was the solution to the problem.

Wilson blamed the lack of government regulation for the misrepresentation and lack of consistency in the nomenclature of medicinal agents used in the United States. His statement was a nearly word-for-word reproduction of his article published in the September, 1959 issue of the *American Journal of Hospital Pharmacy*.

Dean Wilson got into deep water with Senator Hruska (R-Nebr.) when he read a list of 12 guides which he believed manufacturers used in the selection of generic names. Some of the guides he named were "best if name is long and awkward," and "name should be reasonably difficult to pronounce."

Hruska interrupted his reading of the statement to ask if he thought "there was conscious effort made by manufacturers to make names confusing." Wilson replied, "I wouldn't say it was conscious. But you study 100 or 1000 names and you will come to the conclusion that they are pretty complicated."

His proposed solution: form a committee of members of representative groups, as has been done in England, and in a systematic way, develop a logical system of nomenclature.

He concluded by calling for members of the professions of medicine and pharmacy to be given some control over which generic names and which chemical names are going to be used. Most important, Wilson said, "the Food and Drug Administration should have this power of regulation and should work closely with the professions of pharmacy and medicine."

substandard drug quality

On the witness stand when the hearings resumed Wednesday morning, May 11, was Mrs. Mildred Edie Brady, editorial director of Consumers Union of the United States, Inc., Mount Vernon, New York—publishers of *Consumers Reports*.

Her early statement that Consumers Union has never tested or reported by brand on prescription drugs caused some observers to feel that her testimony in reference to drugs had little real meaning. Later, when it appeared that her conclusions about the pharmaceutical industry were based on the results of investigation in other fields, her testimony seemed further to lose validity.

Mrs. Brady charged that the consumer who pays for prescription drugs is at the mercy of two forces over which neither he, nor his physician, nor his druggist can exercise control or choice—physical illness, on the one hand, and a set of trade, professional and governmental practices and controls on the other, that add up to a total situation about which the individual can do nothing.

"With most things we buy," she continued, "we rely on the quality and integrity of brand names. . . . whoever equates 'substandard' with 'generic name' drugs must be aware that in

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Just off the press are the published transcripts of the first week of the drug price hearings of the Senate antitrust and monopoly subcommittee (held December 7–12, 1959). They have been issued in two volumes—*Part 14* and *15* of the series *Administered Prices*. Paper bound editions are available from the Superintendent of Documents, U.S. Printing Office, Washington 25, D.C. Cost is $1.50 per volume or $3.00 for the two volumes.

Nicholas Kittrie, special assistant minority counsel (*far right*), points out that the individual retail pharmacist does not have access to an elaborate inspection system to insure the quality of the drugs he dispenses. Other committee members pictured (*left to right*) are staff economist, John Blair; staff counsel, Rand Dixon; Senator Philip A. Hart and minority counsel, Peter Chumbris.

some states welfare agencies require, as an economy measure, that generic names be used for drugs in prescriptions written for patients on relief."

She said that Consumers Union investigations have found that neither brand name nor price bears any consistent relationship to quality. She charged that the pharmaceutical industry's claim that brand names offer protection against the threat of substandard drugs is "both unsatisfactory and self-serving."

Mrs. Brady concluded, ". . . the nation is faced with an intolerable situation—high and rising prices for drugs and the threat of sub-standard quality, a threat not limited to low-cost generic name drugs. Thus, the basic problem is not brand names versus generic names but substandard drug quality."

After Mrs. Brady's testimony had been read, Senator Hart introduced a new line of reasoning which came to play an important part in the week's proceedings. "In my book," he said, "the most serious thing you've raised is the reminder about patients on relief. Is this practice of prescribing generically to welfare patients dangerous? We better get the answer to that. If it is not dangerous, then everyone can benefit by it."

Nicholas Kittrie, special minority counsel, then asked, "You feel there is no big difference between the safety of drugs prescribed by trade name and any other drugs? . . . But the record shows there have been many more seizures of small manufacturers."

armed services controls

The testimony of Captain Herman R. Fahlbusch, SC, USN, deputy executive director, military medical supply agency, next on the stand, brought out the following points:

The military medical supply agency, part of the Defense Department, buys drugs and maintains a catalog listing them for the armed services. It selects its own nomenclature for the drugs used if the particular items are not listed in the *USP, NF, NND, US Dispensatory* or publications of the American Chemical Society in that order of priority.

According to Fahlbusch, the MMSA catalog contains no trade names, though it does list various trademark/tradenames cross-referenced to the federal item name.

He said the Navy materiel inspection service conducts pre-award surveys of prospective contractors for the items involved. This survey includes inspection of production and control technics, plant and testing facilities and the determination of competency and knowledge of management, as well as the inspection of housekeeping facilities of the manufacturers.

After the award of a contract, no material is released for shipment unless the inspector is satisfied that the contractor has fulfilled the contract requirements, the captain said.

Staff Counsel Rand Dixon inquired how many drug companies had been found ineligible to supply MMSA and Fahlbusch replied that only the plants of the low bidder were inspected and that only a very small number had been found unsatisfactory because they were all aware of inspection they would have to undergo.

At this point, Kittrie attempted to find out how much it would cost to inspect on a national scale all drug manufacturers in the same manner MMSA does and Fahlbusch promised to supply this figure to the committee. Kittrie pointed out that non-military people do not have the same opportunity to test the quality of drugs that the military does.

hospital formulary system

The next witness, Dr. August Groeschel, associate director for professional services of the New York Hospital, gave an account of the hospital formulary system and charged the National Pharmaceutical Council with posing threats to its existence. He said at the outset that he was appearing before the committee to give evidence for the use of generic names rather than trade names in prescribing drugs for patients in hospitals.

Groeschel gave a lengthy history of the New York Hospital from the time it opened its doors to American soldiers wounded by British forces in the Revolutionary War until the present. He said he was attempting to give the committee members the feeling which the hospital administrators have for the hospital formulary as an instrument to insure sound and economical treatment of patients.

Then he accused NPC—"This is the same hospital formulary system which a segment of the drug industry, led by the rich, powerful and aggressive National Pharmaceutical Council has for the past five years sought openly to destroy. The council has charged that the formulary system leads to substitution and is illegal and unethical."

He closed with an appeal to the Kefauver staff saying he hoped it would pursue the study of this important subject to its logical conclusion ". . and that you will initiate appropriate action to restrain the NPC from continuing its pursuit of a program which . . . is inimical to the best interests of the people in this country."

Senator Kefauver, who dropped into the hearings briefly, congratulated Groeschel on his statement and asked him to estimate the percentage of savings resulting from the formulary method of buying. Groeschel said the hospital's chief pharmacist had estimated the savings to be $250,000 yearly, or 50 percent of the amount now spent annually.

FDA certification of quality

The hearings resumed Wednesday afternoon with a surprise witness, O.K. Grettenberger, director of drugs and drug stores for the state of Michigan, on the witness stand.

Grettenberger said that he did not mean to antagonize large manufacturers. But as a result of the Casden Case, in which a Michigan judge declared that prescribing generically did not constitute substitution, and

since Michigan hospitals have been operating successfully under the generic method of prescribing, he has recommended that the Michigan Board of Pharmacy pass a law requiring the use of generic rather than brand names.

Grettenberger advocated a "Certification of Quality" by the Federal Food and Drug Administration that would "insure the public, irrespective of the size of a corporation, that the labeling is correct." He concluded by saying, "I am afraid that the pharmaceutical industry has overly frightened the pharmacists by implying that everything that is not a brand name is of poor quality." He added that his proposal has not been adopted by the Michigan Board of Pharmacy as yet.

generic names by brand

Next on the stand was another proponent of generic name prescribing, Dr. Walter Modell, chairman of the formulary committee of the New York Hospital and associate professor of pharmacology at Cornell.

"Only non-proprietary names always tend to identify the nature of drugs and, therefore, as a general rule, only by using them can one communicate meaningfully about drugs and instruct students on the nature of drugs and their effect on the human body," Modell said.

"We could never teach pharmacology," he went on, "if we attempted to cope with the confusion created by proprietary nomenclature . . . if a physician wants to know at all times what he is prescribing, he will, perforce, use only non-proprietary names."

Modell concluded by saying, ". . . I am convinced that the use of names which properly identify drugs, that is, non-proprietary names, is necessary for good medical practice as well as to prevent confusion regarding drugs which can lead to accident and disaster."

He told staff counsel Dixon that he thought the practice of prescribing by generic name accompanied by the name of the manufacturer would be the only solution to the confusing problem. This was a complete reversal of Modell's previous testimony that prescriptions should be written generically—any pharmacist knows that using the generic name accompanied by the name of the manufacturer is in effect, the same as writing by trade name.

Modell concluded by saying there were slight differences in fabrication of the same product by different companies, that there would be less confusion in recognizing a drug and that some of the materials within a drug, to which a patient might be sensitive, can be identified by brand—all good arguments for the use of trade names.

federal system of inspection

Next on the witness stand was Dr. Harold F. Pierce, medical director of the Connecticut State Welfare Department. He placed major emphasis on the need for a federal system of inspection:

"Druggists at present have no way of knowing whether drugs offered them at low prices are exactly as represented, or whether their makers are reputable. They therefore place their trust in firms of size and reputation, whose prices may be high, but whose products they can be sure are of adequate quality. Under a proper system of government inspection they could be sure of the quality of a product and the reputation of its manufacturer, without reference to the price. Druggists could then have no objection to the suggested prescription phrase 'or generic, *NND* or *USP* equivalent.'"

surprise witness

After permitting the subcommittee staff to parade only anti-brand name witnesses, Senator Hart introduced his own "surprise" witness, Dr. Thomas Rowe, dean, University of Michigan college of pharmacy, who observed that under the present conditions, a number of manufacturers fail to produce drugs of quality.

He said he was opposed to the enforced use of generic names either by legislation or by any other means that would restrict the physician's choice of drugs, interfere with the manufacturer's right to insist on his drugs being sold when a physician so indicates or have harmful effects on the present physician-pharmacist relationship in the dispensing of drugs.

Rowe said that currently the FDA is able to check for purity and percentage strength on less than one percent of the drugs dispensed on prescriptions . . . of these, over five percent depart in some significant manner from labeled specifications.

"A large number of these violations—probably all of them—are by manufacturers who do not use adequate control procedures," Rowe pointed out.

With this in mind, Rowe expressed the belief that many physicians would turn to office dispensing if generic name prescriptions were required.

"Widespread distribution of inferior drugs would make physicians unsure of the quality of medicaments being obtained by their patients. As a result, physicians would be performing pharmaceutical duties and a large number of pharmacies would be forced out of business.

"From time immemorial," he said, "physicians have had the right to determine exactly which drugs their patients should use . . . changing of this

"The generic name cannot be used in a specific sense"—Lloyd Miller, director of revision for the *United States Pharmacopeia*.

situation would react to the disadvantage of the patient."

In meaningful questioning which followed, Rowe told the committee members that he did not think writing of generic names on prescriptions was unwise as long as the doctor knew how the prescription was going to be filled. "I don't quarrel with the use of any name, as long as you're sure of what you're getting," he said.

At this point Dixon was "struck with the thought," to use his own words, that the only protection the public has today is the integrity and reputation of the manufacturer.

"That's a pretty sorry situation," he said . . . "if we're going to have a common yardstick, somehow, somewhere, there's got to be somebody there to check on standards."

"Within the ethical drug industry," Rowe replied, "standards are being met." He told Dixon that the only thing left to be done was to provide FDA with more money for inspection purposes.

generic term misnomer

Next-to-last witness at the week's hearings was Dr. Lloyd Miller, director of revision for the *Pharmacopeia of the United States of America*.

Miller told the committee that the *USP* provides definitions and specifications of strength, quality and purity for drugs, including necessary test procedures.

After Miller had completed a prepared testimony, Dixon (following Blair's prompting) asked him to read the complete entry in the *USP* for prednisone. After the reading, Dixon commented, "I thought it would illustrate the work *USP* must go to to list and establish prednisone. This is the type of test that ought to be available to FDA to determine if a product meets *USP* standards."

"...drugs bearing the same generic name are not necessarily therapeutic equivalents"—Newell Stewart (*center*), executive vice president, National Pharmaceutical Council; other NPC executives with him—Wilbur E. Powers (*left*), secretary, and William E. Woods (*right*) director of hospital relations.

As the questioning proceeded, Miller pointed out the difference between the meaning of non-proprietary and generic names.

"The adjective, generic, comes from the Latin, word, 'genus.' Actually the term is a misnomer in the drug field, for it is used, not to denote class, but a specific term. The generic name cannot be used in a specific sense . . . the trade name does have a special connotation with regard to the company."

"Why, then," Dixon fired a question at Miller, "isn't it logical for *USP* to list drugs by trade names?"

Miller said it would be difficult to choose between reputable trade name and trade mark rights would be jeopardized if *USP* used the trademarks in listing drugs.

Senator Hart asked Miller if he would be in danger taking drugs prescribed generically. "As a general practice," Miller replied, "prescribing by generic names may be unsafe.

substitution problem

Last in the parade of witnesses was Newell Stewart, executive vice president of the National Pharmaceutical Council. Appearing with Stewart were Wilbur E. Powers, secretary of the council, and William E. Woods, assistant to the executive vice president and director of hospital relations.

In his opening statement Stewart explained that NPC "is particularly concerned with the practice known as substitution, the dispensing of a different drug or brand of drug in place of the drug or brand of drug ordered or prescribed, without the express consent of the prescribing practitioner."

Stewart noted that the substitution problem was of fundamental importance because the practice undermines the patient-physician-pharmacist relationship . . . "when an individual visits his physician to be treated for some ill, he expects his physician to prescribe the drug which, in the physician's opinion, will be the best to return him to good health. It is the physician's perogative to prescribe whatever he sees fit.

"The heart of the difficulty lies in the fact that drugs bearing the same generic name are not necessarily therapeutic equivalents. Significant variations can and do frequently occur and the results can be harmful to the patient."

Stewart said that in prescribing a particular brand of drug, a physician chooses the brand that has characteristics which the patient should have. The generic name does not indicate to the dispensing pharmacist what these characteristics are and he cannot tell from reading the prescription why the prescriber chose the brand he did. If the pharmacist substitutes, he may be defeating the very purpose of the physician in selecting the brand he chose.

"Because drugs with the same generic name are not necessarily therapeutic equivalents, we have recently undertaken a hospital relations program which is designed to assist the health team in resolving problems presented by the development of hospital formularies.

"The NPC has never taken an official position on hospital formularies . . . it is not opposed to formularies where they are used only as an educative technic . . . the point is that a voluntary formulary which does not restrict the prescribing habits of a physician is proper. We feel that every formulary should state clearly how a physician is to obtain for his patients any drug not listed in the formulary.

"Whatever drug dispensing practices in hospitals show improper consideration for the public, the physician or the pharmaceutical industry, the Council will bring such practices to the attention of hospital pharmacists and hospitals . . . we insist that the medical profession be left free to prescribe exactly what it sees fit and that the public be assured that it gets what the doctor prescribes."

All three NPC representatives insisted, in the ensuing questioning period, that they were critical of a formulary system where there is a mandatory policy—where the doctor has no choice.

Staff counsel Dixon spent a great deal of time reading into the record correspondence which had been taken from the NPC files by the committee. Most of the correspondence was with state boards of pharmacy, urging them to take a stand on the substitution problem.

The NPC representatives clearly acknowledged that they had written the letters, but pointed out they never appeared before the state boards or any other groups and never brought pressure to bear upon anyone. They said they offered counseling and advice to the groups.

Dixon was obviously disappointed when Stewart's only comment about the accusation made against NPC earlier was that he was "confident our members would not want to remain members if Groeschel's statements about NPC were true."

Senator Hart's efforts to be fair in these hearings were obvious when he ruled against the majority staff, preventing Dixon from reading a personal letter of Carl Raiser's into the record.

summary

In a summary of the week's activities, Hart said that the hearings had shown that there was much controversy related to the desirability of using generic names.

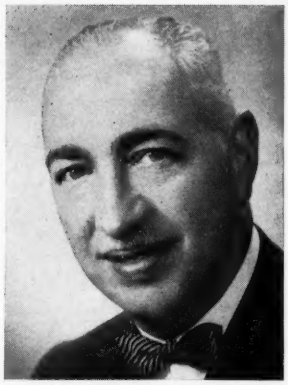
"Disturbing is the fact," he said, "that there may be a tendency to regulate only certain segments of the industry and that those people on welfare may be getting substandard drugs as a result of generic prescriptions.

"There is no price tag on safety," he went on. "But it is apparent as a result of the hearings that many people think the only way to be safe is to rely on the manufacturer. The committee should consider whether there ought to be a public agency to control the situation—an agency which would insure safety in terms other than reputation."

He said he felt the hearings had been valuable. "But, he concluded, "I hope we can get a broader consensus on the question, 'who is right?' Responsible people have testified on both sides." ■

figuratively speaking . . .
drug industry economics

by Jules Backman*



Dr. Jules Backman began his career in economics while still in his teens by working in Wall Street and attending night classes at New York University. He received four degrees from NYU and has since been called upon to serve as a consultant to corporations, industries and several governmental agencies. The NYU professor has written more than 85 books and pamphlets in his field and has contributed many articles to trade journals and economic periodicals. Since 1945 he has been economic advisor to the American railroads in wage and rate cases and since 1944 has served as economic advisor to the steel industry in national wage cases. Backman is an honorary fellow of the American Statistical Association.

During the last few years, the drug industry has been subjected to a variety of public examinations by administrative agencies, legislative groups and in the courts. The FTC study of antibiotics, hearings of the Fountain and Kefauver committees and the anti-trust cases involving Salk vaccine and tetracycline are familiar illustrations. And if reports from Washington are correct, the end is not yet in sight.

As a result of these developments and the accompanying headlines the drug industry has sometimes been made to appear a profiteering, conspiratorial, monopolistic industry. The statements—often inaccurate and misleading—made by Senator Kefauver and his staff have received considerable publicity. Their fantastic misuse of figures is classic and in the light of such distortions, there is a real need for proper perspective concerning the economics of the drug industry.

Sober appraisal must take the place of sensationalism if the contributions of the drug industry to our national economy are to be evaluated and harmful legislative actions are to be avoided.

a major growth industry

Economic growth is a vital national necessity to meet our aspirations for higher living standards, to provide job opportunities and to meet the threat of Russia. While many persons are playing a numbers game with growth rates, there is agreement that growth yields beneficial results.

The drug industry has been a great growth industry particularly since the end of the war. The rate of increase in employment in the industry has been more than twice the national average and more than three times as great as for all manufacturing industries since 1947 (*see chart at right*). Clearly, the drug industry has provided more than its proportionate share of job opportunities and has, therefore, played an important role in growth.

Between 1947 and 1959 total sales by drug manufacturers increased from $890 million to $2,700 million or by 203 percent. During the same period total gross national product increased from $234.3 billion to $479.5 billion or by 105 percent. Thus, in dollar terms, the drug industry has been growing almost twice as rapidly as the national economy.

However, the dollar increase in gross national product was due to higher prices to a greater degree than was true of the pharmaceutical industry. Thus, the general wholesale price index rose by 23.3 percent and the consumer price index by 31.4 percent between 1947 and December 1959. In the same period, wholesale drug prices declined by 11.0 percent and retail drug prices increased by 28.2 percent. It is evident that the increase in manufacturer's sales in the drug industry was due largely to greater volume.

A similar pattern developed in the 20-year period from 1939 to 1959. Drug sales rose by 800 percent as compared with the increase of 426 percent in gross national product.

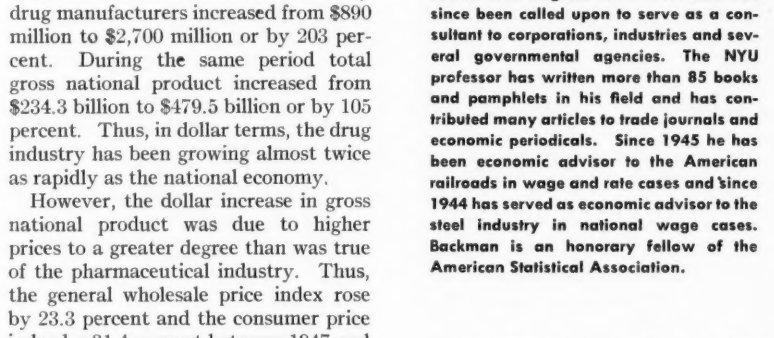
A breakdown of the sales figures makes it clear that the rapid rate of growth was due mainly to the tremendous expansion in ethicals (*see chart on page 343*).

Thus, between 1939 and 1959, sales of ethicals rose by 1,242 percent while proprietaries increased by only 360 percent. Since 1947, the increases have been 245 percent for ethicals and 125 percent for proprietaries.

The U.S. Department of Commerce has made some estimates of the rates of

	1948	1958	Per cent Increase
	(thousands of pounds)		
Antibiotics	240	2,500	941.7
Vitamins	2,556	8,700	239.0

Source: *Survey of Current Business*, May 1959 p. 23.



* An address given before the Pharmaceutical Manufacturers' Association at Boca Raton, Florida, April 6, 1960.

growth for specific products. Among the products with the greatest rates of growth in physical volume between 1948 and 1958 were antibiotics and vitamins.

If the Commerce data had included the steroids, tranquilizers and other more recent developments, similar large increases would have been shown.

The U.S. Department of Commerce has noted that the average annual increase of 25 percent in the production of antibiotics was accompanied by much lower prices–

. . . the average price of antibiotics has declined from $860 per pound in 1948 to a current price amount of around $160 per pound.

In evaluating the contribution to national economic growth by the drug industry, two points should be noted.

▶ The development of new drugs, which has meant an alleviation of pain and suffering, has contributed directly to economic growth.

▶ This industry, by extending the working life of our population and by restoring to active production many workers who formerly would have been idle for long periods as a result of illness, has contributed directly to economic growth.

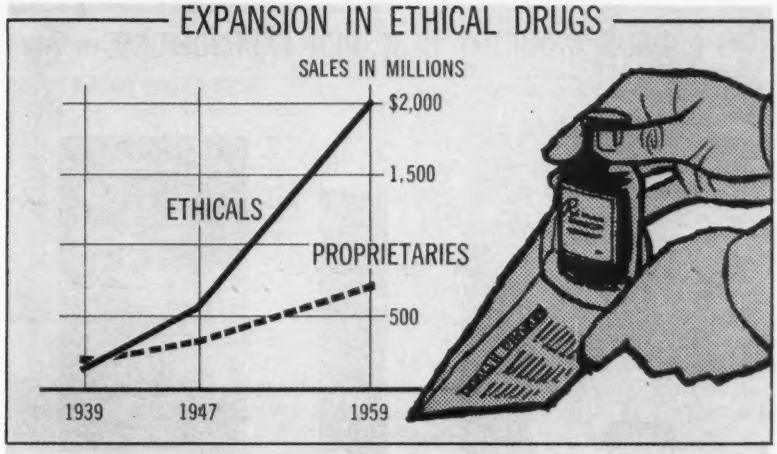
research and development

Growth has not been fortuitous in the drug industry. It is a direct result of the research consciousness of the industry. Research expenditures have risen markedly. The total was $30 million in 1948, $170 million in 1958 and an estimated $190 million in 1959. And for 1960 and later, expenditures on research continue to point higher (*see chart on page 344*).

The proportion of the drug sales dollar devoted to research is one of the highest for any American industry. For all industry, the average in 1958 has been estimated at 3.2 percent while for the drug industry the ratio estimates range from 7.0 percent to 9½ percent. The higher ratio is obtained when research expenditures are related to sales of ethicals, the segment of the industry which accounts for practically all the research costs.

Several points should be kept in mind in connection with these large expenditures. First, Senator Kefauver and his staff have made a major issue over whether specific companies discovered or developed particular products. Possibly, the picture would be clarified if these expenditures were described as *discovery and development* instead of research and development. It takes more than the discovery of a drug to make a contribution to better health. Some discoveries have remained dormant for years because the major tasks of testing, experimenting and developing were not undertaken or because the real significance of the discovery was not understood.

Certainly, not all lines of research can



be equally productive or deal with problems that are of equal importance. Nor does progress take place at some uniform rate. The nature of research is such that the shotgun rather than the rifle often yields the greatest overall results.

A satisfactory level of profits plays a two-fold role in connection with research.

▶ It provides the reward for successful research and thus is the inducement to spend money for this purpose.

▶ While research expenditures are ordinary business expenses and hence are deductible for tax purposes, the funds required for plant and equipment to develop successful products are capital expenditures. Such funds are made possible by a satisfactory level of profits. A good level of profits either facilitates the sale of new securities or provides the funds for expansion when they are not paid out as dividends. In the latter instance the stockholders are financing expansion by foregoing current dividends.

level of profits

The drug industry has reported higher rates of profits over the years than have most other industries. Among the factors which have contributed to this record are greater risk exposure, repaid product innovation and obsolescence, more intensive promotion, understatement of net worth and above-average rates of growth. The factors together go far to explain the level of profitability of the industry.

▶ **Greater risk exposure:** Since the drug industry is one in which a relatively high percentage of sales arises each year from new products, change is the rule rather than the exception. New products account for a larger proportion of total drug sales than in almost any other business. Profits tend to be higher in new than in older established companies and industries. As a result, this factor contributes toward the relatively higher rate of return which has marked the industry over the longer-run period.

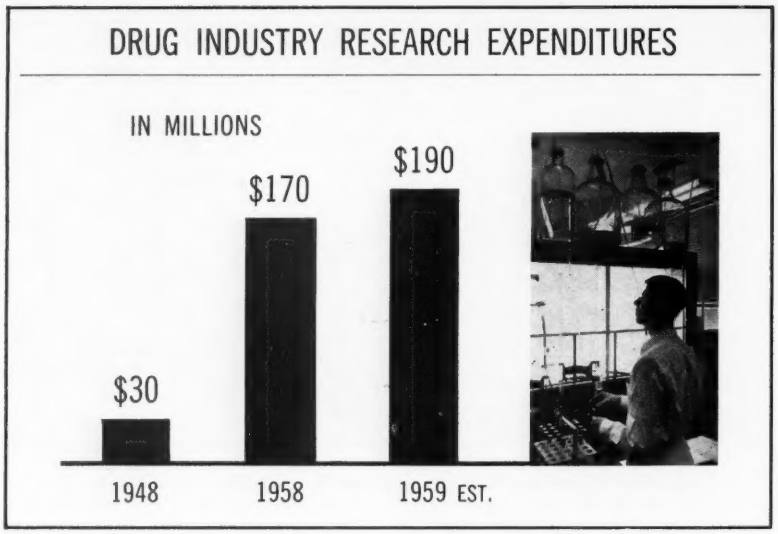
Efforts to promote new products are not always successful, nor does all expenditure for research eventuate in a commercially saleable product. Uncertainty is perhaps the most important single factor accounting for traditionally higher profits in some industries than in others.

▶ **Rapid product obsolescence:** In the drug industry, great risks are present because of the extremely rapid pace of new discovery leading to product obsolescence. As more dollars have been funnelled into research by more companies, as well as government and independent organizations, there has been a decided shortening of the life span of new products. Thus, the risk of product obsolescence is greater today than ever before.

Once competition has caught up—and the grace period allotted is foreshortened now by foreign as well as domestic competition—the initial producer is faced with product obsolescence and with the shrinking markets which accompany the emergence of new producers.

▶ **Intensive promotion:** Drug companies perform an important educational job. Their salesmen spend considerable time with doctors to acquaint them with new drugs and their therapeutic characteristics. It is the doctor who prescribes and hence much of the sales promotion must be directed to him.

The expenditure of a relatively high share of the drug sales dollar for selling expenses is not a postwar phenomenon. In 1940, 13.4 percent of the sales dollar in drugs and medicines was used for this purpose. Very few industries had a higher ratio. In some industries a high ratio for selling and delivery expenses is attributable to high delivery costs rather



than to promotional expenses (e.g., milk, bread and bakery products and biscuits and crackers).

Since doctors generally prescribe brand names rather than chemical formulas, drug companies are compelled to promote the names of their products. This is one evidence of the intensive competition in the industry. The product's qualities and its advantage over competitive products must be impressed on the minds of doctors. Since the qualities are not easily summarized in some quick slogan, companies must undertake the large expenses associated with distributing samples and reading matter and using detail men.

So important is the promotion of new products that, to a large extent, a manufacturer's continued existence is dependent on his success in this area. Successful products earn high profits; others fail completely.

▸ **Intensive investment in product and trade name:** Investment in the drug industry is more in terms of trade name and product brand than in brick, mortar and equipment. Such investment usually is entered on the books at token value as good will. It does not appear as capital which adds to net worth. As a result the total net worth of the industry is understated. When profits are compared with this understated net worth, the resulting return is reported to be higher than comparable rates of return in other industries.

▸ **Above average rate of growth:** A final characteristic of industries with above-average rates of profits is an above-average rate of growth. Drug companies have been among those with the more rapid growth in the past three or four decades.

There are several additional important points to keep in mind in connection with profits.

1. There is no yardstick available to determine what is a "fair" profit. Comparisons with average rates of profit in the economy prove exactly nothing concerning the "fairness" of profits. The nature of an average is such that some companies and industries will be above and others will be below the average. This does not mean that above-average profits are to be criticized or that below-average profits are to be praised.

2. The phrase "gross profit margin" is an unfortunate one in any industry but particularly so for drugs where so small a part of the sales dollar is accounted for by manufacturing costs. The manner in which the Kefauver staff has misused these figures provides recent evidence on this point. The term profit should be reserved to describe what is earned by a company after deducting all costs and taxes.

3. A drug company doesn't know precisely what profit it earns on any particular product or group of products. A major part of all costs is usually allocated among all products on some arbitrary basis which has little or no relationship to the costs actually incurred.

For example, how many of the companies producing tranquilizers charged as costs against those products the full expenses for the time and money they spent to testify before, and prepare testimony for, the Kefauver committee? And if such charges were not made, how meaningful is any profit estimate for such products? The same problem arises in connection with many of the expenditures for promotion, administrative costs, and other items. These costs generally cannot be separated for specific items.

4. Most drug companies sell a large number of products, some of which are made available even though the market has shrunk or is much too small to yield any satisfactory profit. Nevertheless, by supplying these products the company builds up good will which may contribute significantly to a higher volume of sales for other products. Under these conditions, even if separate costs could be completely calculated they would not be too meaningful as a guide to the real costs and profit rates for individual products. Moreover, if some products did not yield above-average profits, these items with below-average profits or losses could not be made available—to the serious disadvantage of the persons for whom they are prescribed.

drug prices and inflation

Wholesale and retail drug prices have lagged far behind other prices during the last 20 years (*see chart on page 346*). Thus, for example, the wholesale price index of drugs and pharmaceuticals has increased 80.9 percent since 1939 as compared with a rise of 137.3 percent for all commodities and 121.3 percent for industrial prices. If drug prices had risen 137.3 percent, drug manufacturers would have had sales of about $3,550 million instead of $2,700 million or an increase of $850 million, assuming other factors had remained the same.

Since 1947–49 wholesale drug prices have *declined* by 6 percent while the all-commodities index has increased by 18.9 percent and industrial prices have advanced 28.6 percent.

It is clear, therefore, that drug prices have not contributed significantly to the price inflation in recent years. This conclusion was also reached in a study by Markley Roberts* made for and published by the congressional joint economic committee. In his words—

> **The price experience for this component has been quite different from that of medical services. The drug price index went up about 26 percent, 2 percent a year, compared to the all-items rise of 30 percent, or 2.3 percent a year, and the medical services price rise of 58 percent, or 4.1 percent a year, from 1947 to 1958. Therefore, it would appear that increasing prices of drugs and prescriptions, the commodity portion of the price index of medical care, are relatively less significant in comparison to the increases in the prices of medical service.**

This relatively small increase in retail drug prices occurred during a period of rapid improvement in the quality of drugs. Furthermore, if the full impact of price declines for the newer forms of antibiotics as well as other new products were included, the over-all rise in retail prices probably would be even smaller.

A confirmation of the relatively modest increase in drug prices is found in the data for consumer expenditures for

* Roberts, Markley, *Trends in the Supply and Demand of Medical Care*, Study Paper No. 5, Joint Economic Committee, p. 80 (Nov. 10, 1959).

percent increases in prices of medical care

	Percent Increase Since		
	1939	1947–49	1955
Total medical care	111.0	53.2	19.7
Medical care other than drugs	125.8	59.2	21.2
Hospital rates	329.1	115.0	30.8
Hospitalization insurance	N.A.	65.9	43.6
General practitioner's fees	95.4	45.8	17.3
Surgeon's fees	70.7	27.7	9.7
Prescriptions and drugs	47.5	23.2	10.8

Source: U.S. Bureau of Labor Statistics

medical care and drugs. Despite the enormous growth in the physical volume of sales, the major breakthroughs in many fields and the vast improvement in quality and potency of many drugs, the consumer now spends about one cent out of each dollar of disposable income for drugs and sundries in contrast to $^9/_{10}$ of one cent 20 years ago. For other types of medical care, expenditures have increased from 3.1 percent to 4.2 percent of disposable income during the same period.

It should also be noted that retail drug prices have risen much less than the prices of other types of medical care. Thus, since 1939 the price of medical care services, excluding drugs, has risen by 125.8 percent. Since 1947–49 it has increased by 59.2 percent and since 1955 by 21.2 percent. All of these increases are significantly greater than those which were reported for drug prices.

If the comparison is made with 1955, wholesale prices of drugs and pharmaceuticals have shown practically no change in contrast to the rise of 7.4 percent for the all-commodities index and approximately 10 percent for industrial prices. Clearly, in terms of wholesale prices, drugs and pharmaceuticals have made no contribution to the price inflation since 1955 and much less than the average contribution since 1939. And the published index does not show how favorable the story really is because the index does not include many of the newer forms of drugs, such as steroids, tranquilizers and broad-spectrum antibiotics. Accordingly, the declines which have taken place in these products have not been fully reflected in the published indexes.

The retail price index reported by the Bureau of Labor Statistics is admittedly very inadequate for drugs and pharmaceuticals since it includes only aspirin tablets, milk of magnesia, multiple vitamin concentrates, and the following prescriptions: non-narcotic dispense, non-narcotic compounded, narcotic dispense and penicillin (buffered for oral use).

Despite its inadequate coverage, the reported index of drugs and pharmaceutical products does indicate the extent to which the rise in the total consumer price index has been attributable to high drug prices.

- ▶ Since 1939 the consumer price index has risen by 111.3 percent while the index for prescriptions and drugs has risen only 47.5 percent.
- ▶ Since 1947–49 the consumer price index has risen by 25.5 percent as compared with a rise of 23.2 percent for prescriptions and drugs.
- ▶ Since 1955, the increase of 10.8 percent in prescriptions and drugs compares with a rise of 9.6 percent in the consumer price index.

Per capita expenditures—average spent for every man, woman, and child—were $19.02 for drug preparations in 1958. This compared with $37.19 for tobacco products, $53.72 for alcoholic beverages, and $24.82 for personal care (toilet articles, barber and beauty shops).

If the retail prices of drugs had risen as much as the consumer price index (111.3 percent instead of 47.8 percent) since 1939, *it would cost the consumer at least an additional one billion dollars to buy the drug preparations now consumed.*

The Kefauver committee has given considerable emphasis to the fact that the reported prices for certain drugs have shown little or no change during the past five years. Three points must be kept in mind in connection with this record.

▶ This was a period in which the consumer price index rose by about 10 percent and the general wholesale price index by about 8 percent. Thus the real cost of drug products has gone down as compared with other prices.

▶ In many instances companies maintain relatively unchanged prices for items which are declining in importance. Thus, for example, if the price of a drug remains unchanged but its sales fall sharply, the significance of the stable price is not very great. In fact, in some instances, products are maintained in the line by a company to meet the demands of doctors who continue to prescribe the older product despite the development of newer and improved products.

▶ The period of price stability for many new products was preceded by a period in which prices were cut very sharply.

cents per dollar of disposable income spent

	all medical care	drug preparations and sundries	medical care excluding drugs
1939	4.0	0.9	3.1
1950	4.2	0.8	3.4
1955	4.6	0.9	3.7
1958	5.2	1.0	4.2

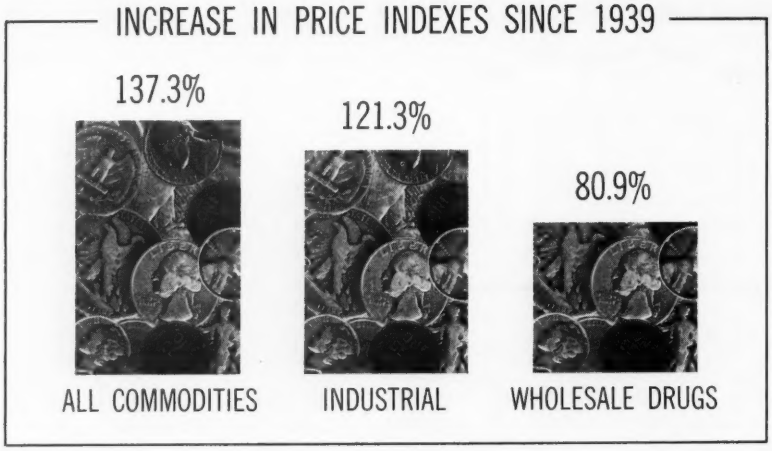
prices abroad

The drug industry also has been subject to considerable criticism because some products have been sold at lower prices abroad than in this country. In this connection the following statement is of interest—

> Our European competitors do not invest money and manpower to develop products or markets to the extent we do. Their policy appears to be to charge what the traffic will bear...
>
> As long as U.S. capacity is not fully used, we must seek markets outside our country. Only in this way can we avoid layoffs of our employees. It must be obvious that we cannot sell in an overseas market at more than the price prevailing in that market. Fair prices that permit sound research and development programs for products and markets, as well as an adequate return on investment, are essential to the economic health of our industry. They must be low enough to attract the consumer, but also must reflect the need for capital to develop new products, and new markets for those products, in addition to absorbing at least part of the constantly rising costs of operations.

This statement was not made in connection with drug pricing. It was made by David Reynolds of Reynolds Metals Company to describe the reasons why aluminum was sold at lower prices abroad than in this country. This practice is not unique. It is followed by many industries throughout our economy.

In some instances, the explanation may be found in the fact that these items are produced abroad and hence are subject to much lower costs than those experienced in this country. In other instances, where the products are



produced in this country, such costs as promotion and advertising tend to be less abroad because wage scales are so much lower.

It may also be necessary for firms to sell abroad at lower prices to meet competition from other companies which, by producing in those countries, have a tremendous cost advantage. Finally, as long as a company can obtain some return above its manufacturing cost, it can afford to sell products abroad at prices below full cost. The explanation that will be most significant will vary among products. Price differences *per se* are not to be condemned or to be used as proof of a conspiracy against the American consumer.

dynamic competition

The intensity of competition in the drug industry is as great as that in any industry. I don't know of any other industry with a story as dramatic as that which can be told by the drug industry. An examination of the composition of sales for many products shows amazing changes from year to year.

In 1950, for example, Cortone, the Merck brand of cortisone, accounted for 100 percent of the steroid market. In 1952 the proportion was 97.1 percent; in 1954 it had declined to 26.8 percent; in 1956 it was down to 3.2 percent. In 1954, Cortef, produced by Upjohn, accounted for 15 percent of the market. In 1956, Delta cortef, produced by the same company, accounted for 6.2 percent while Cortef had virtually disappeared. In 1956, Metacortone, produced by Schering, accounted for 53.9 percent of the market while in 1958 that product's proportion had declined to 30.7 percent. Pfizer, Squibb, Schering and Lederle, who had no role to play in 1954, accounted for significant proportions of the total sales in 1956 and 1958.

Many industries are characterized by *Big Threes* or *Big Fours* who account for a major part of total output or shipments. For the drug industry, the four largest companies accounted for only 25 percent of total shipments in 1954. This is a relatively low concentration ratio.

If one listens to the Kefauver committee, the drug industry has a series of monopolies over the same type of product. That these "100 percent monopolies" by different companies are in intense competition with each other is a fact of life to which he gave little heed. The fact that these "monopolists" have absolutely no control over their market also is ignored. I am impressed with the fact that no "monopoly" about which I have heard is replaced so completely and with such speed and such regularity as are these drug "monopolies."

We usually think of the "monopolist" as one who is in a position of great strength and able to withstand the challenge of all comers because of his powerful and entrenched position. The drug industry has a sort-of up-side down "monopoly" because in its case the "monopolist" can be—and is—wiped out as a factor in the market within a short period of time.

The tremendous changes which are found in connection with most drugs are evidence not of "monopoly" but of competition of the most rigorous type. This competition has its roots in the dynamic and imaginative research programs of the industry. If all "monopolists" had the same precarious hold over their markets as the alleged drug "monopolists," economists would have stopped worrying about them a long time ago.

conclusion

The drug industry has undergone a complete transformation during the past two decades. The dramatic results of extensive research programs has been the primary cause of this change. However, the industry has been so busy growing that I suspect many companies have not had the time to take a fresh look at themselves. Possibly the main contribution of the recent hearings and other public reviews of activities is that the industry has had to appraise and reappraise its company policies. As a result of manufacturers' testimony and various public statements, the veil is being lifted and the public is being given an opportunity to understand the industry better—to the extent that the facts can penetrate the thick fog of politics.

Any examination of this industry cannot avoid the conclusion that there is a paucity of readily available information on any continuous basis. PMA already has started to collect annual data for research and development—and that is a step in the right direction. But how about the costs of the new plant and equipment required to make available the fruits of research and development? Why not collect data for such new investment annually?

Sales trends have been compiled for 8, 10, 19 or some other list of companies when required. But such data often are composites which include more than drug products—examples include basic industrial chemicals, cosmetics and toiletries, foods, etc. Why should't PMA collect and publish annual sales data for the entire industry with a breakdown between ethicals and proprietaries and for the main categories of products? It would then be possible to relate research and development expenditures to ethical sales and thus to show the full magnitude of the industry's activities in this area.

The data showing the changing composition of the markets for the leading ethical drug products present the most dramatic picture of competition I have seen for any industry. Why not make such data available annually in some readily accessible form?

Data might also be collected to show the number of stockholders thus indicating the broad public participation in the earnings of drug companies.

Consideration could also be given to collecting data which show the cost of non-wage benefits to the industry.

Such data alone will not tell the entire story. There are many other aspects of this industry that do not lend themselves to such quantification. But these data could provide at least a framework of reference which would make possible an understanding of the economies of the industry.

The industry is now a three-billion-dollar industry and one in which the public has developed a keen interest. But before the industry can really tell its story to the public it must follow the maxim, "know thyself." ●

to the future ■ ■ ■

budding scientists win awards at

National Science Fair

This year for the first time at the National Science Fair—International the AMERICAN PHARMACEUTICAL ASSOCIATION awarded two prizes for outstanding pharmacy exhibits. Walking off with the top prizes were Eugene Louis Diveglia, Jr., of Harrisburg, Pennsylvania and Shannon Wells of Bethany, Oklahoma.

Both winners had conducted their research on cancer, the top winner exhibiting on the chemotherapy of cancer and the runner-up displaying her study of cancer and the inhibitive substance.

It was fitting that APHA inaugurated its awards at this Fair. General chairman for the event was Dean K.L. Kaufman of the college of pharmacy at Butler University, the first pharmacist to hold this post in the 11 years the Fair has been in existence.

The awards were presented at the annual Health Awards Banquet, one of the highlights of the three-day event in Indianapolis, Indiana, May 10–13. Sponsoring the banquet, held on May 12 in honor of all 356 finalists and their teachers, were the American Dental Association, American Medical Association, American Veterinary Medical Association and AMERICAN PHARMACEUTICAL ASSOCIATION.

Speaker for the occasion was John H. Furbay, a member of President Eisenhower's advisory committee on the "People-To-People" program, guest lecturer for the Institute of World Trade and for the Strategic Intelligence School in Washington, D.C., author and magazine writer. He put a new slant on events with his "Let's Join the Human Race."

After a welcome by Dean Kaufman, Dean Maynard K. Hine of the school of dentistry at Indiana University took over as emcee and also handed out the awards for the American Dental Association. Presenting the plaques for APHA was President Howard C. Newton who also awarded first-place winner Eugene Diveglia with an all-expense paid trip to the APHA convention in August in Washington, D.C. Representing Indiana pharmacy at the banquet that night was O. Eugene Hinshaw, president of the Indiana Pharmaceutical Association.

Awards for the American Medical Association were given by Dr. Carl A. Lincke, chairman of the AMA council on scientific assembly, while the American Veterinary Medical Association awards were presented by Dr. C. Roger Smith of AVMA's council on research.

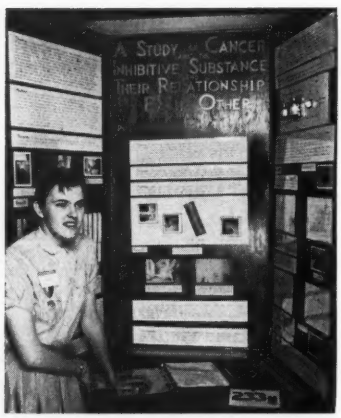
Young Diveglia, a 17-year-old senior student in Central Dauphin High School, Harrisburg, Pennsylvania, has been doing research in cancer chemotherapy for three years and plans a career in some phase of biological research. Since 1958 he has been winning science fair awards and this year won the trip to the National Science Fair by capturing first place in the Third Capital Area Science Fair of Pennsylvania. In addition his exhibit gained a $25 wish award for him in the biological sciences division at the national event. He will bring his exhibit to the APHA meeting and will be there to visit with APHA members. Sponsoring Diveglia in the Science Fair were *The Patriot* and the *Evening News*, Harrisburg newspapers.

APHA's honorable mention winner, Shannon Wells, has been receiving recognition for her work in science for some

They selected the APhA winners—APhA President Howard C. Newton, L.C. Heustis, Howard A. Swartz, Chairman J. Warren Lansdowne, H.G. DeKay, Kenneth M. Wood and Robert C. Anderson.

national science fair awards

Eugene Diveglia, Jr. and his exhibit—first place APhA winner.



Shannon Wells and her exhibit—APhA honorable mention.

American Pharmaceutical Association

First Place	*Eugene Louis Diveglia, Jr.* (17), Central Dauphin High School, Harrisburg, Pennsylvania
Honorable Mention	*Shannon Wells* (17), Bethany High School, Bethany, Oklahoma

American Medical Association

Winners	*Brenda Wright Lisle* (16), Red Bank High School, Chattanooga, Tennessee
	Philip C. Bockman (18), Ottawa Hills High School, Grand Rapids, Michigan
Honorable Mention Citations	*Norma Jean Ayers* (17), Powell High School, Powell, Tennessee
	Richard Komorowski (17), Notre Dame High School, Milwaukee, Wisconsin

American Dental Association

Winners	*Sheila Marie Most* (15), Boca Ciega Senior High School, Gulfport, Florida
	Donald Francis Kearney (17), Warwick Veterans Memorial High School, Warwick, Rhode Island
Meritorious Achievement	*Mary Sue Wilson* (16), Malcolm Price Laboratory School, Cedar Falls, Iowa
	Alan Paul Bloebaum (18), A.N. McCallum High School, Austin, Texas

American Veterinary Medical Association

Winner	*Robert D. Towe* (17), Bozeman Senior High School, Bozeman, Montana
Honorable Mention Citation	*Fredrick Anthony Dombrose* (15), Okemos High School, Okemos, Michigan

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time. She won a research grant from the Oklahoma Junior Academy of Science, was named the outstanding girl scientist in Oklahoma City by the Soroptimist Club and has received science fair awards since 1958. Her display earned its way to Indianapolis through the Fifth Central Oklahoma Regional Science Fair in Edmon with *The Vista* newspaper and Central State College serving as her sponsors. Not only did Oklahoma's girl scientist walk off with second honors in the pharmacy field but she took a second place in the general awards and walked off with a $75 wish award.

Represented at the fair were 44 states (including Hawaii and Alaska) the District of Columbia, Germany, France, Italy, Canada, Japan and Thailand. The APhA team of judges—J. Warren Lansdowne, chairman, Robert C. Anderson, H.G. DeKay, L.C. Heustis, Howard A. Swartz, Kenneth M. Wood and Howard C. Newton—selected the winners not only on the basis of their exhibits but on their knowledge of their subject as well.

To encourage an interest in pharmacy and to attract more young people to the profession, APhA initiated the annual pharmacy awards at the National Science Fair. This program on a national level should stimulate local associations and pharmacists to establish local awards and encourage more displays of a pharmaceutical nature. One of the 356 finalists at the 1960 National Science Fair had won a local pharmacy society award and four of the finalists boasted of parents who are pharmacists.

Finalists come to the National Sci-

Joseph Kraus, co-ordinator, National Science Fair, at the information booth answered questions for APhA's Marjorie Coghill and George B. Griffenhagen.

At the Health Awards banquet—

President Newton and Chairman Lansdowne check Eugene Diveglia on his knowledge of his research subject.

Shannon Wells and Eugene Diveglia, with their awards in their hands, study an exhibit on careers in pharmacy.

ence Fair—International by winning at thousands of science fairs in secondary schools. The subject material, equipment and supplies are frequently obtained with the guidance of local professional scientists. Here is one way in which pharmacists through their individual efforts and through their association can work with potential scientists and do a great deal to encourage the use of pharmaceutical material in the school projects.

The fairs give the youthful scientists an opportunity to meet with other budding scientists, to talk with experts in their fields, to visit manufacturing plants not only in their own interest area but in others as well and to discover their scientific skills and abilities.

Tours at the event this year of particular interest to future pharmacists included a visit to Eli Lilly and Company, Pitman-Moore Company, Indiana University Medical Center and Butler University pharmacy college and gardens.

Students are even now beginning to look forward to next year's Fair, slated for Kansas City, May 10–13, 1961. ■

on the cover ■ ■ ■

To Shannon Wells and Eugene Diveglia, President Howard C. Newton offers congratulations on their winning the APhA awards made at the National Science Fair. In front of a recruitment exhibit he points out the careers pharmacy can offer to scientific minded youths. Shown on the cover are recruitment tools for pharmacy including *See Your Future in Pharmacy*, a brochure available from APhA at a cost of $5 per 100 and $40 per 1,000, and a booklet, *Shall I Study Pharmacy*, which is now being distributed exclusively by APhA at a cost of $20 per 100 and $180 per 1,000. Two recruitment films, *Design for Life* and *Time for Tomorrow*, are available for free bookings from Sterling-Movies USA, Inc., 6 East 39th Street, New York 16, New York. The recruitment program under a grant from the American Foundation for Pharmaceutical Education has been transferred to APhA by the American Association of Colleges of Pharmacy with the establishment of the National Advisory Commission on Careers in Pharmacy.

by Carl McDaniels

across the desk of the high school counselor

What shall I do? Where shall I go? What shall I study? In what field will I find success, security, satisfaction? For what am I best fitted? Where are my abilities most needed?

These are the questions the youths of today are asking as they prepare themselves for their lifework and their careers. Frequently they turn to their high school counselor for guidance. In him they find not only a teacher but a consultant for—and a guide to—their future. To give individual counseling as well as group guidance services and to help students plan an intelligent educational and vocational program, the high school counselor collects, organizes and analyzes information about each individual student through records, tests, interviews and similar sources. In addition he disseminates information about the various professions and occupations to provide the students with a variety of choice. In many cases the high school counselor also provides placement services for his students and acts somewhat in the nature of a father-confessor to help them understand and overcome social and emotional problems.

Across the country today there are an estimated 20- to 25,000 men and women spending half of their school time or more in counseling duties. Basically these counselors are not interested in recruiting for any one particular field. They are more interested in presenting the most objective, up-to-date and accurate information about as many career fields as possible. It is up to the men and women in a profession or occupation to keep counselors supplied with this data.

In this age of automation and rapid change, the counselor feels a heavy responsibility to provide students with an opportunity to become acquainted with all vocational areas. Many fields—and pharmacy is one—are in critical need of skilled manpower, but counselors in fairness to their students, cannot select just a half dozen or even a dozen of these vital fields and do a recruiting job for them. A counselor's primary responsibility is to make information available on many occupational and career fields so that the student may make a wise decision based on as many facts as possible.

High school students need occupational information from as many sources as possible. These sources of information may be fact books on many career fields such as the fine booklet published by the National Health Council—*The National Health Career Guide Book*—or they may be pamphlets, folders or other short and concise career briefs. Both kinds of publications have a very useful function in the field of occupationall iterature. The *Guide Book* by the National Health Council provides a student with an overview of the many and varied opportunities open to him in this area. But there is also need for more specific information about careers in such health fields as pharmacy, occupational therapy, dentistry, medical technology and others.

Here the pharmacist at the local level, and through the AMERICAN PHARMACEUTICAL ASSOCIATION, can best operate. Aside from factually written materials, the student needs information which can be obtained best through visits to various job locations. It is also helpful when pharmacists can come into a school and provide groups of students with illustrated talks giving basic information about career opportunities within pharmacy. These school discussions, often held during career programs, should include broad views of the general field. They should describe the need for pharmacists in community pharmacies as well as in research work, in hospitals and in many other areas in which pharmacists are currently employed.

Another vital need for students is the opportunity for job try-outs. Many of you now engaged in pharmacy know all too well that a prospective pharmacist is never really sure how well he will like a career until he has performed the day-by-day routine. In effect then, it is important for students to have, if possible, first-hand opportunities to observe your day-to-day activities. Certainly it is better to encourage an able student to enter your field by using every source of information about the profession, including an opportunity to work on the job.

How much a student is influenced by his contacts with pharmacists cannot be over-estimated. The opportunity to know the type of men and women engaged in pharmacy will give the student some idea of the type of personality and temperament he should

Helping young people discover and prepare for their life's vocation has been Carl McDaniels' major interest since his days as a psychology major at Bridgewater College. After graduation there, he went on to obtain his MEd in guidance and counseling at the University of Virginia where he is now a doctoral candidate in educational psychology. Before he was named assistant director for professional relations at the American Personnel and Guidance Association, McDaniels was a high school teacher, a personnel man with the U.S. Navy and a high school counselor. His discussion of today's recruitment methods received such an enthusiastic response at the March meeting of the National Advisory Commission for Careers in Pharmacy that he was asked to present his ideas on the subject in the form of an article for THIS JOURNAL.

have to be a success in this vocation. The pharmacist-to-be needs an opportunity to talk at length in both formal and informal circumstances about such matters as working conditions, hours, direct and indirect benefits, educational requirements, opportunities for advancement and for owning one's own business and salary expectations. Personal comments about many of these matters should supplement the various sources of written material which are becoming more and more available to larger numbers of high school students.

Personal comments about the manpower needs in this field during the years ahead can be very helpful to the student. There has been considerable publicity on the need for skilled manpower in the 60's and the student is alerted to job forecasts in many vocational fields. Therefore, it is important for the pharmacist to provide the student with information on pharmacy career expectations for the next 10 to 20 years.

The student is also interested in knowing what effects automation is having and will have on the pharmaceutical field in the next several decades. And he should have this information before he makes his educational commitments so he can select a college on the basis of his job choice. There are many kinds of information which can best be handled through personal contacts. These should be objective in nature so that the student will have a more accurate picture of pharmacy and the type of personality required for the profession.

A guide to their future—a high school counselor discusses with students their future careers and outlines the possibilities open to them.

the five "I's"

Both the counselor and student are searching for five basic ingredients—information, integrity, interest, imagination and intelligence. These five ingredients are essential to every source providing facts which the student and the counselor need.

▶**information**—The student needs information that will answer his questions about the career he is investigating, questions such as the importance of the occupation and its relation to society, the duties involved, the nature of the work, the number of workers currently engaged in the field, the general qualifications necessary for entry and advancement, the preparation both in general and professional terms, the method of entering the field, the possible paths of advancement, the earning potential, the general conditions of work and the principle places of employment. The student wants, and needs, facts. In many cases these facts should come early in his secondary school education as he makes tentative career decisions.

One source of information most often used by the counselor is the *Occupational Outlook Handbook*, prepared by the Bureau of Labor Statistics of the U.S. Department of Labor, in cooperation with the Veterans Administration. This particular source is so often used because the counselor feels that in this handbook he has an objective source of information which emphasizes no particular career field but presents precise information about current activities, trends and future expectations in hundreds of job areas. It is also necessary for the pharmacist to present objective information and certainly it is a responsibility which he must discharge in good conscience to the students with whom he talks.

▶**integrity**—Both in career information and personal contacts, there should be integrity in terms of the facts presented. It is important that a student receive honest and unbiased information. He needs to know the pros and cons of a career field but a brief look at materials written for student consumption would lead one to believe that in many occupational fields there are nothing but positive features. Yet almost every career field has at least some negative aspects. It is better for the student to enter a job area knowing of the unattractive as well as the attractive features of the field in which he expects to spend his life. Because a counselor must rely on the practicing pharmacist or on available career information to give all shadings of the picture, he needs to have faith in the integrity of both.

▶**interest**—In both career information and personal contacts the material provided the student must be interesting. The student will not be attracted to pharmacy if the person to whom he talks is not enthusiastic or if the material that he receives is dull and poorly prepared. To get honest information across, it must attract the age group with which you are discussing it. Many students are shopping for a career field; their interest in pharmacy is perhaps not as keen as the person who has spent 10, 15 or perhaps 20 years in the field. It is the responsibility of the recruiter in this case to make the field appear interesting—to make the information available come alive on a personal basis. The local pharmacist can help a student by giving him an opportunity to explore the job, visit pharmacies, observe research in laboratories and visit colleges of pharmacy. Interest, then, plays a double role—it must stimulate the student and be characteristic of the pharmacists to whom the student talks.

▶**imagination**—If recruiting for the field of pharmacy is to be a continuing success, imagination will be needed to develop variety in the procedures used to interest students. In Washington, D.C., the YWCA has conducted career workshops for the last several years during the summer months. In these career workshops, high school sophomores and juniors are given an opportunity to combine both career information and first-hand experience and they return to their schools with a more precise idea as to what certain job choices will mean to them.

A local pharmaceutical association might plan a field trip during which time groups of interested high school

students would be given the opportunity to visit local pharmaceutical facilities such as a community pharmacy, a hospital pharmacy, a college of pharmacy, a wholesaler, a manufacturing laboratory and others. Pharmacists might arrange a luncheon for high school students at which former students would discuss college experiences in schools of pharmacy. Parents and counselors could be invited to attend evening dinner sessions at which up-to-date information of an interesting and vital nature would be presented to all persons who are in a positon to help—and influence—the students.

By using imagination, local pharmacists can interest students through the means best suited to local conditions. Perhaps a simple luncheon at the soda fountain will be of more interest to students in certain sections than an elaborate formal dinner at a local hotel or restaurant. The pharmacist should be alert to all the possibilities for showing pharmacy in a favorable light. He should realize that pharmacy must be presented as more than hard, cold facts; it must be shown as a profession with a challenge, with opportunity, with imagination.

▶**intelligence**—Finally, it is important for pharmacists and writers of pharmaceutical career information to think about the intellectual level of the students they are trying to reach. This is particularly important to those pharmacists who will be speaking to, and writing materials for, students of junior high school age. It is important, too, to remember the vocabulary level of the students and recall that technical terms will have little meaning to the unsophisticated student who, up to this point, has spent much of his time acquiring fundamental skills.

Although students may show great interest in the field, an over-supply of technical and highly specialized information may tend to frighten an interested student away from further exploration. It is better to sketch the fundamental principles in simple and concise language that will carry meaning and weight for the student who is not a graduate of a college of pharmacy and who needs to acquire a gradual introduction to the technical and highly specialized vocabulary and terminology in any field. Intelligence, then, should be considered in reaching the reading, educational and developmental level of the students who are being assisted.

summary

The counselor leans heavily on community resources for assistance in providing the student with accurate, up-to-date information. He is always willing to build up his knowledge of the available community resources that provide information to counselors as well as to students. This is where the local pharmacists can play a vital role. He can provide the important personal link between the career guide books and briefs that somehow are rather cold and impersonal. It is hoped also that the pharmacists at the community level will keep in mind the five "I's" of good career material so that they may be of real service in helping students make proper and realistic career choices that will provide them with the opportunity to enter a field of endeavor in which they will find life-long satisfaction and happiness.

NVGA career guidance bibliography

As a service to its members and others interested in career guidance materials, the National Vocational Guidance Association, a division of the American Personnel and Guidance Association, publishes a bibliography of occupational literature. Not only is it a listing of literature according to occupation but it is an evaluation of the contents, format and type of publication as reflected by the NVGA standards.

Each item reviewed is classified as A-career fiction, B-biography, C-occupational monograph, D-occupational brief, E-occupational abstract, F-occupational guide, G-job series, H-business and industrial description literature, I-occupational or industrial description, J-recruitment literature, K-poster or chart, L-article or reprint, M-community survey and economic report or job analysis.

The publication is also rated by a 1, 2 or 3 on the following basis. A 1-rating indicates maximum adherence to NGVA standards, 2-rating indicates general adherence to NGVA standards and a 3-rating indicates the publication is useful but does not meet NGVA standards. For example, C-1 would indicate an occupational monograph, highly recommended.

Pharmacy in the 1959 *NVGA Bibliography of Current Occupational Literature* (available from the American Personnel and Guidance Association, 1605 New Hampshire Ave. N.W., Washington, D.C.—$1) is represented by the following publications:

Briggs, W. Paul, *The Bridge Between*, National Association of Chain Drug Stores, 1954, 6 pp., free. L-3

Angel, Juvenal L., *Careers in the Field of Pharmacy*, World Trade Academy Press, 1955, 28 pp., $1. A-1

Shosteck, Robert, *Careers in Pharmacy*, B'nai B'rith Vocational Service, 1957, 15 pp., 35¢. D-2

***Drugstore Workers*, Science Research Associates, 1958, 4 pp., 45¢. D-2**

Johnson, Harry, *I'll Take Pharmacy*, McKesson and Robbins, Inc., 7 pp., free. L-3

Closs, John O'Neill, *Pharmaceutical Industry*, Bellman Publishing Company, 1956, 28 pp., $1. C-2

***Pharmacist*, Careers, 1958, 7 pp., 25¢. D-2**

***The Pharmacist*, Careers, 1958, 1 p., subscription service. K-3**

***Pharmacist*, Chronicle Guidance Publications, Inc., revised 1958, 4 pp., 35¢. D-1**

***Pharmacists*, Michigan Employment Security Commission, revised 1955, 20 pp., 35¢. C-2**

***Pharmacists*, Science Research Associates, 1955, 4 pp., 45¢. D-2**

***Pharmacy at Southern California*, School of Pharmacy, University of Southern California, 1947, 10 pp., free. J-3**

***Pills and Frills, You Have to be a Good Merchandiser, Too!*, Chronicle Guidance Publications, 1954, 4 pp., 15¢. L-3**

***Shall I Study Pharmacy?* American Association of Colleges of Pharmacy, 31 pp., 35¢. C-2**

***See Your Future in Pharmacy*, the APhA career brochure, has been submitted for evaluation and listing.**

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preview for a career . . .

pharmacy open house

by Robert J. Gerraughty

At the Rutgers University college of pharmacy open house a student shows how a practicing pharmacist compounds prescriptions.

Open house programs for colleges of pharmacy can accomplish many worthwhile objectives. In addition to informing various groups about pharmaceutical education, the open house program can contribute directly to the student's classroom and laboratory studies.

The goal of informing the public about the pharmaceutical education and research program should be directed toward eight groups—practicing pharmacists, faculties of other colleges within the university, university officials, state and local government officials, representatives of other health professions, high school guidance and science teachers, parents and friends of pharmacy students and the general lay public.

Each of these groups has different interests and the program should be planned to satisfy the varied needs. Some groups are more interested in seeing research, others in looking at equipment or the physical plant. The interests of some may be confined to one department or area of study specifically while others would prefer a more general outlook. If an open house program is to be a success, these factors must be kept in mind.

Practicing pharmacists will be looking for many things. They like to see the college of pharmacy on display because it helps to enhance their public recognition and to build prestige for their profession. They will want to find out about changes in the educational program, the research being conducted, new equipment obtained and just about everything else imaginable. At an open house held recently at Rutgers University college of pharmacy, practicing pharmacists were given the opportunity to have their questions answered by faculty members and students—and they took advantage of this opportunity. A comment of one pharmacist was, "It is an education just to see the improvements that have occurred in only six short years."

Faculties of other colleges of the university, all too often, harbor mistaken impressions of what pharmaceutical education includes. Their opinions of pharmacy may stem entirely from what they see in the corner drug store. An open house program presents pharmacy in a more favorable light.

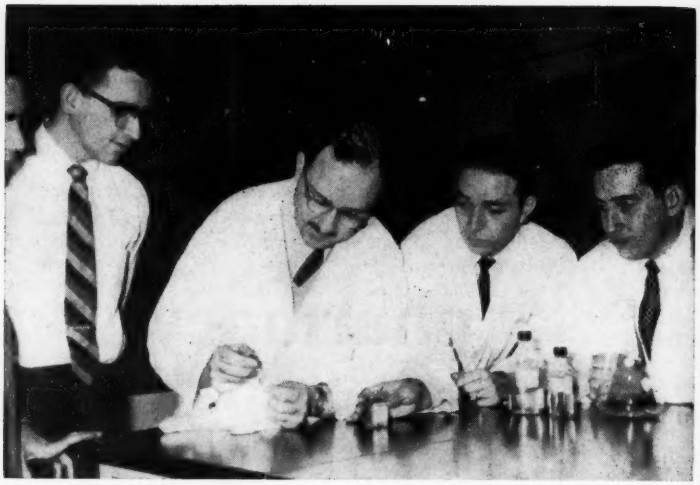
University officials want to see how the pharmacy budget is used. If properly organized, the program should show administrators that the funds provided are wisely spent. The result is good will and understanding which, in turn, reflects on their decisions about future pharmacy budget requests.

State and local government officials are also interested in the pharmacy college. These people are involved in allotting funds and they want to see how the funds are expended. These officials realize that well-trained professional men and women are necessary and, through an open house, they can see just how well students are being trained for their profession. With this group, good will and understanding can be developed, also.

Members of other health professions, in general, frequently labor under wrong impressions about pharmaceutical education. One physician at the Rutgers open house program remarked that he was amazed at the scope of the chemistry and biology education included in the curriculum. An open house can show physicians that the pharmacist's training equips him to provide many professional services which he is not asked to render at the present time. The discovery of this information will incline many physicians to consult with the pharmacist on modes of administration, improvement of formulations and pharmacological aspects of medication. Co-operation and mutual understanding among professions would be strengthened.

High school guidance and science teachers get the opportunity at an open house to find out what pharmacy really

After receiving his bachelor's and master's degrees from the Massachusetts College of Pharmacy and his doctorate in pharmaceutical chemistry from the University of Connecticut, Robert J. Gerraughty turned his attention to research. Interested in the workings of ultrasound waves, he conducted his research on ways to use these waves to solve pharmaceutical problems. Another phase of his research work involved the enteric coating of tablets. Now an assistant professor of pharmacy at Rutgers University college of pharmacy, Gerraughty helped organize the open house program.



Laboratory experiments demonstrate the research phase of pharmacy for open house visitors as well as students.

is. This group will be very inquisitive about many aspects. At our open house, they asked many questions about the curriculum, average salaries in pharmacy, opportunities for the graduate pharmacist, entrance and curricular requirements and others. Conveying favorable impressions to this group should help considerably in the recruitment of future pharmacists. Guidance and science teachers in many high schools do not advocate pharmacy as a career because they know little about the profession.

Parents and friends of the pharmacy students have a chance to watch these students performing pharmaceutical operations in laboratories, to see the excellent facilities of the college and get an overall view of the training program. The open house also provides a chance for them to meet and talk with the faculty and staff who provide the instruction.

Other benefits of an open house program are not so well defined because of the heterogeneous background and interests found in such a broad classification of visitors. One of the main purposes of the program is to show *the public* that pharmacists receive excellent education and training to prepare them to work for the benefit of the public. A state university, because it is tax supported, benefits more from such a demonstration than any other university. A good impression makes school taxes seem more important to these taxpayers and leads them to consider bond issues or other school legislation from a more favorable standpoint.

The student body of the college of pharmacy may reap many benefits, also. Desirable qualities of leadership, fellowship, co-operation, professional pride and scientific insight can be developed best by having the students plan and carry out the program with the guidance of the faculty and staff.

The afore-mentioned qualities are almost as essential to the future pharmacist as is the knowledge of the art and science of pharmacy. To help cultivate these traits, there are student government, professional organizations and social clubs. An open house program is one more medium for this social development.

To develop leadership and followership, a real problem must be presented. It was apparent at Rutgers that planning and carrying out the open house program provided both goals and motivation to teach leadership. Students spent hour after hour planning, setting up and handling the many details of the program. Both faculty and students were pleased at the fine balance of leadership and followership attained. This balance, along with the strong incentives to show pharmacy at its best, made the open house a success from all points of view. One of the faculty remarked, "It is difficult to conceive that such co-operation is given so cheerfully!"

Scientific insight may be developed or strengthened at an open house. Underclassmen see where they are going and upperclassmen review where they have been. Many sophomores said they better appreciated the need to learn basic technics and theory when they saw how useful they were in the more advanced courses. Seniors saw the entire pharmacy picture better during the program because it was presented in a compact form. Participation in laboratory demonstrations helped students in their scientific development also. To explain pharmacy to others, they had to know their material well. Students who just the week before the open house, showed only a slight understanding of specific gravity theories and applications gave superb explanations of them for their demonstrations. The desire to show guests their abilities stimulated the students to achieve good learning and insight. These achievements, it is pleasing to report, carried over to future studies.

Professional pride developed remarkably in students as they tried to put the proverbial "best foot forward." As a result, they felt a sense of accomplishment and pride in their profession.

The effort necessary to make an open house program successful is large. It cannot be accomplished in a few hours or even in a few days or weeks. However, it was the concensus that the manifold worthwhile benefits of the program more than compensated for the effort extended. As proof more than 2,000 guests attended the open house program at Rutgers and many of them expressed sincere enthusiasm.

Coming Next Month: Preliminary APhA Program

In the July Journal look for complete program details on the annual convention of the AMERICAN PHARMACEUTICAL ASSOCIATION in Washington, D.C., August 14–19. You'll want to plan your schedule to take in all the outstanding sessions—so send in your hotel reservation form immediately as rooms in the headquarters hotels—the Shoreham and the Sheraton Park—are already at a premium.

Don't be among the missing! See you at APhA's meeting, August 14–19.

report from St. Louis College of Pharmacy ▪▪▪

why students choose **pharmacy** as a career

by Arthur J. Zimmer and C. Lee Huyck

The question of how to interest young people in studying pharmacy has been with us for a long time but the question takes on a new significance in the light of the five-year education program. A study of the reasons given by our present students for choosing pharmacy as a career might give us a start toward preparing a sound and effective recruiting program for use in future years.

Under the present advisory system at St. Louis College of Pharmacy and Allied Sciences, set up some years ago by a committee,* each student is asked to answer questions designed to give the advisers information about the student's background. Among the questions asked—immediate reasons for taking pharmacy, age and whether the student has relatives in pharmacy or medicine.

We tabulated the reasons the student chose pharmacy, giving consideration to the age grouping and the number of students who have relatives in pharmacy.

Since the student answered these questions at the time of registration, he had had little or no contact with personnel of the St. Louis College of Pharmacy. Because of this situation, we think these answers represent the true feelings of the individual at that time.

From personal experience, for example, we find that students undergo a change in their feeling toward pharmacy as they progress in their study of it. This change is to be expected since our purpose at the college is to give the student an opportunity to study the many facets and aspects of pharmacy, some of which are unknown to the neophyte. Furthermore, it is our duty to instill into the student an attitude of professional dignity and responsibility toward his chosen profession. Thus, a study made by polling the students enrolled in the various classes would not tell us much about why the student chose pharmacy as a career in the first place.

In this study, the class entering in September 1958 was covered completely and a representative sampling was made from the classes of the years 1952 to 1957. In the latter case, the sample size was 252 students who represented approximately 50 percent of the total number of students registered.

It was surprising, at least to the authors, that the replies could be divided into four or five groupings. Table I shows the categories of the replies. Almost half of the students had experience working in drug stores and, because they liked the work, decided to come to the St. Louis College of Pharmacy and make pharmacy their career.

The next large category is probably related to the first, that is, those students who came to the college because they were influenced by friends or relatives—these probably had been working in drug stores and the friends were their employers. If we compare the figures for those students registering in 1958 with those registering during the years 1952 to 1957, we note that the totals of the first two groups are reasonably close—70 percent of the 1958 class against 77 percent for the '52–'57 group.

The number of students choosing pharmacy for economic reasons—to earn more money—decreased almost 50 percent in the 1958 group as compared with the earlier classes but the group choosing pharmacy to be professional increased in 1958 by almost the same amount percentagewise. This growth of interest in the professional aspect may be in part the result of an ever-larger number of brochures and pamphlets, describing pharmacy as a profession, that have been distributed to the high school students in the past few years.

Students selecting pharmacy because

* Committee—Drs. A.J. Zimmer, chairman, O.K. DeFoe, W. Rist and A.G. Zupko.

Loyalty to his alma mater probably influenced Arthur J. Zimmer in his pursuit of a teaching career. After receiving two advanced degrees—MS and PhD—at Washington University, he returned to the scene of his undergraduate study, the St. Louis College of Pharmacy and Allied Sciences, where he is professor of pharmaceutical chemistry.

Four colleges contributed to the pharmaceutical education of C. Lee Huyck, who took his undergraduate training at Albany College of Pharmacy, Philadelphia College of Pharmacy and Science and the University of Buffalo. Now a professor of industrial pharmacy at the St. Louis College of Pharmacy and Allied Sciences, Huyck was awarded the MS and PhD degrees by the University of Florida.

table I

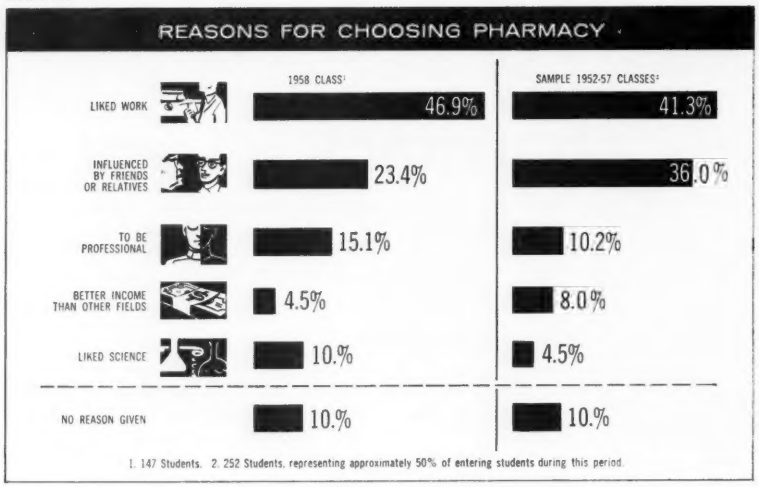


table II

age of student choosing pharmacy

age (years)	1958 class (in percent)	sample 1952–57 classes (in percent)
16–19	68.0	60.4
20–25	24.6	32.8
Over 25	7.4	6.0

table III

students with relatives in pharmacy

	1958 class (in percent)	sample 1952–57 classes (in percent)
father	9.50	14.70
mother	1.36	
grandfather	1.36	
brother	2.72	4.00
sister	.68	.44
uncle	2.20	
cousin	1.36	
total	19.0%	19.1%

they liked science may also have been influenced by the brochures or by Sputnik and the resulting publicity given to the study of scientific subjects. At any rate, there is an increase of slightly more than 50 percent in the 1958 group over those in the 1952–57 group choosing pharmacy because they liked science.

That new blood is being injected into pharmacy and that many children of pharmacists must fail to follow in the footsteps of their parents is obvious from the number of students taking pharmacy who have no relatives in the field. This may be caused by the low birth rate of the '30's, but we feel there is another reason—the confining nature of retail store work. Fathers, because of late evening working hours, have been kept from seeing their children from one week to the next and this has an effect upon their children when they select a career. This is pure speculation, of course, but it is not uncommon to hear an older pharmacist, remembering the days when it was common for a pharmacist to work 70 to 80 hours a week, state that he would discourage his children from taking up pharmacy. One can hardly expect a son or daughter at age 18 suddenly to develop a feeling for a profession which has been presented for many years in a derogatory manner.

Many of the younger members of our profession, however, working under far different conditions, have a much different attitude in this regard. From Table II, it can be noted that almost the same percentage of students in 1958 and in the years 1952 to 1957 have close relatives in pharmacy. It seems as though pharmacists influence their friends and employees to choose pharmacy as a career but not their families.

In Table III, we find that the age grouping is as might be expected—the 1958 group having slightly higher percentages in the lower age group. This is probably a result of the return of the Korean veterans during the 1952 to 1957 period. It appears that about 68 percent of our students come to us directly from high school. At the same time, a significant number, 32 percent must wait from two to five years or more before entering upon their chosen career. When we consider that almost 18 percent of our students are transfer students, the percentage of students in the group 20 years old or older who have not continued their education after high school is considerably less.

summary

One of the most significant points noted here, we believe, is that the percentage of students with relatives in pharmacy is so low. Only one or less students out of five has family ties with pharmacy. It is our belief that only if we have people with deep roots in a profession, will that profession progress to the fullest extent. The incentive to do great things is somewhat blunted by the realization of a man that there is no one to carry on his work. What better incentive to make pharmacy a greater profession than the realization that a son or daughter is going to make it his or her life's work?

As a practical matter, it appears that most of our students are going to be recruited from among those high school students working in pharmacies after school hours or during the summer vacation. The neighborhood pharmacist is the man to push the recruitment of new pharmacists but let us remind him that it might be well to sell his profession also to his children by making them fully aware of the rewards and benefits of his work.

Let the infant teethe on a pestle and eat from a mortar and don't sell pharmacy short to those who matter the most.

byPhilip Elkin*

paid in advance . . .
health insurance trends

The impact the insurance mechanism has on the health (particularly the pharmaceutical) segment of the national economy must be examined and explored on the basis of three broad questions—(1) *what share of national income is spent on medical care (particularly drugs and prescriptions)*, (2) *what is health insurance* and (3) *how much medical care is prepaid and what may be the future for health insurance coverages?*

what share of national income is spent on medical care?

According to the U.S. Department of Commerce figures, the current rate of spending for medical care is about five percent of the gross national product; in absolute terms, this amounts to approximately $25 billion.[1] Expenditures for medical care have been expanding steadily in terms of dollars and in the proportion of the national income allocated to it. Less than four percent of the gross national product was allocated to medical care in 1929.[2] Not only is this a growth industry, but the demand for medical care has been highly inelastic in nature—in depressed years, the proportion of the gross national product spent on medical care tends to increase! Therefore, the economic trends of the medical care segment of the national economy indicate that this is an enviable growth industry with rare cyclical stability.

what are the expenditure trends of the divisions within the industry?

Excluding construction, certain public health and research items, approximately 90 percent of annual medical care expenditures are for personal health care.[3] Of the expenditures for personal health care, about four-fifths are from private sources and one-fifth from government agencies. Since World War II, the relationship of private expenditure for drugs and sundries[4] to personal spending for medical care has remained rather constant at about 20 percent of the consumer's medical care dollar. Hospital expenditures tell quite a different story—the proportion of personal medical care spending for privately controlled hospitals has risen during this period from 20 percent to almost 27 percent. The spending for hospitalization has had the most significant increase in expenditures both absolutely and proportionately! It is important to recognize that in spite of intensive promotion, new products and alleged unconscionable mark-ups, the drug companies and the druggists have barely held their relative position in the competition for the consumer's medical care dollar. The drug industry has prospered largely because of the broad growth in consumer expenditures for medical care, not because it has become a more significant factor in the medical care economic structure!

WHAT ABOUT PRESCRIPTION INSURANCE?

what is health insurance

An interesting question is what role has the insurance mechanism played in these trends in medical care expenditure. But before we can deal with this question, it is necessary to develop a few working concepts in the field of insurance.

first, what is insurance?

There are many activities that pass today under the label of insurance. Deterrent air power is sometimes described as insurance. Carrying an umbrella is often considered rain insurance. The expression "taking a calculated risk" implies some sort of insurance—even when the risk is incalculable! All of these have a grain of truth in them, but not enough for a working tool of analysis. In the broadest sense, when small average loss is substituted for large potential loss the insurance principle is in evidence.

Insurance is a social device, since it concerns a group of individuals. It involves the pooling of many similar risks—the more homogeneous, the better the predictability. Pooling of risk is one essential element for the concept of insurance. The other essential element for the insurance principle is the transfer of the burden of the risk—the transfer of the risk from the individual to a risk-bearing group such as an insurance company, an association, a government agency or a co-operative. The impossibility of risk measurement or prediction in the individual case is transferred to a group of risks wherein the average incidence of loss may be forecast within some margin of error which can be managed financially. As the late Dean C.A. Kulp of the Wharton School of Business in Philadelphia has defined it,

> **Insurance is a formal social device for the substitution of certainty for uncertainty through the pooling of hazards.**

how is this principle applied to medical care in the form of health insurance?

The insurance device is concerned with economic losses that follow the occurrence of an observable event. In the case of health insurance, this event is the disability of the human body. When the health of a person is impaired, the types of consequential economic loss may be placed in two categories—*loss through payment of medical bills and loss of income-producing ability*. Conse-

* Presented at the Philadelphia Pharmacy Forum, Philadelphia, Pennsylvania, March 15, 1960.

quential loss of income may be partially mitigated by cash benefits during the period of disability. Medical expenses may be defrayed by making the medical services required available to the insured or by cash reimbursement for bills paid by the insured. It may be said that health insurance is a device which substitutes relatively small systematic premium payments, in advance, for partial payments of medical care expense or disability loss of income in the future.

E. J. Faulkner, president of the Health Insurance Council, describes the recent growth trend in health insurance[6]—

> ***No other line of insurance has ever enjoyed such a phenomenal growth as private health insurance during the last 25 years. A complex of influences has been responsible for the 3,200 percent increase in the premium volume of health insurers since 1934.***

Prior to 1934, the health insurance industry gave accident insurance their primary emphasis. There was great fear of the problems of feigned illness and malingering. It was somewhat more difficult for a violent bodily injury to be contrived and the propensity to malinger after an accident was not as prevalent as the willingness to malinger after establishing a questionable illness. When business was bad, it was startling to observe the increased frequency rate of illness. The insurance companies lost money on their health insurance business for several years following 1929.

A second reason for the low magnitude of health insurance premiums in 1934 was the replacement-of-income nature of insurance benefits. Cash benefits during the period of total disability on a weekly or monthly income basis was the major type of health insurance contract in force. This is not the case today. The present emphasis, as to type of benefits, is on payment of medical care bills.

In the 1930's, the health insurance business was revived through the promotion of a new insurance product by the hospital associations. These plans of insurance became known by the label, "Blue Cross." During World War II and the '40's, group health insurance became a popular substitute for pay increases while governmental wage controls were in effect. The unions, through collective bargaining, found that fringe benefits were popular with their constituents—especially health insurance benefits which could be realized almost at once. The threat of national health insurance during the Truman administration spurred the insurance industry to sacrificial promotion of new health insurance forms, in spite of their disastrous loss-ratio history in health insurance coverages.

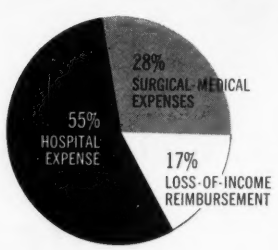
In the 1950's, the insurance companies found that health contracts, primarily concerned with the payment of medical bills, could be written profitably, as well as sacrificially. They gradually re-entered the disability income benefit area but emphasis was put on partial payment of medical expenses. By 1959, the Health Insurance Council reported the types of benefits paid annually by voluntary insuring organizations[7] (*see chart at right*).

The insurance companies have utilized two important principles of the insurance mechanism to attain their recent success, especially in group health insurance. These are the deductible and co-insurance principles. A deductible feature requires the insured to absorb the first portion of a consecutive series of medical expenses. This eliminates the many small claims that result from the average person's expected minor illnesses. The primary purpose of insurance is to defray severe unexpected losses, not to act as a budgetary device for expected expenses. It makes little sense to run your grocery bills through a third-party overhead, why should you run your expected medical expense through an insurance company overhead? A co-insurance feature requires the insured to absorb a portion of every loss dollar sustained. Even when this portion is a minor percentage, the insured is given a vested interest in minimizing amounts of loss. This feature acts as some restraint on malingering but is more effective in discouraging overutilization of medical care facilities by the insured.

The two major abuses in any health insurance mechanism are malingering on the part of the insured and overutilization of facilities on the part of both the insured and his medical advisor. The hospital association plans were formed in the 1930's to encourage greater use of vacant hospital beds. Therefore, hospital confinement was a condition of eligibility prerequisite to the insured getting benefits of any kind. There are many illnesses that do not require hospitalization and many that do not require it in all stages of the malady's duration. However, if occupying a hospital bed is a requisite condition for the receipt of insurance benefits, the insurance contract through this feature provides a direct incentive for overutilization of medical facilities—incurring greater medical bills than necessary for adequate medical treatment.

This abuse of the insurance mechanism is aided and abetted by certain unscrupulous physicians. Using the ability-to-pay yardstick for the magnitude of their fees, they assume that the more the insured gets through the insurance mechanism, the more dollars will be left with the patient for payment of physician's fees. Neither the deductible

HEALTH INSURANCE BENEFITS



nor the co-insurance feature are effective in combatting this vicious practice, only the medical profession can deal directly with this abuse.

Let us return to our principles of insurance. It seems that the insurance companies have been inspiring the hospital associations to develop new products for the insured public in recent years. (*The hospital association plans revolutionized the insurance business in the 30's. This revolution suggests that a variety of approaches to the insurance mechanism seems to be a social benefit.*) It is interesting to observe that some hospital association insurance contracts are now using the deductible principle and the co-insurance principle under the "co-pay" terminology. Even out-patient benefits are being introduced in an effort to discourage overutilization of hospital beds. It is not easy for the hospital associations to re-educate their subscribers to accept such desirable features for the insurance mechanism. Years of emphasis on first-dollar-of-loss reimbursement for hospital bills and payment in full for hospital expenses incurred during short illnesses are hard ideas to change. Many people, who do not understand the first principles of insurance, believe that a deductible feature is a gigantic swindle and a co-insurance feature is a method of short-changing the policyholder!

There is one new product development in the insurance industry that deserves special mention. This is the major medical coverage. Prior to the 1950's, medical expense coverages were generally limited to a number of days of hospitalization or maximum benefits of a few hundred dollars per illness. The only semblance of coverage for large losses was in the loss-of-income type of policies—and most of these had been limited to one or two years of benefits. Now loss-of-income contracts are available with benefits of periodic amounts for the duration of the insured's productive life, presumptively to age 65. But this is a small part of the health insurance business.

The volume new coverage is in plans that have aggregate benefit limits of many thousands of dollars, 10- to 15-thousand-dollar limits are common.

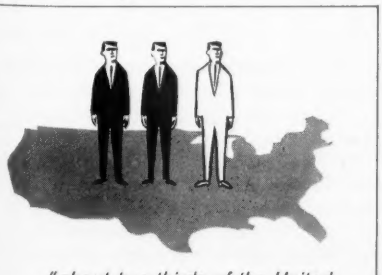
This is a substantial defrayment of the heavy medical bills that accompany an extended illness. Such bills would be economically catastrophic to the patient. Hence, major medical insurance is sometimes called "catastrophe coverage." After all, one of the primary purposes of the insurance device is to have a pooled group of insureds readily absorb large losses that would seriously impair the economic status of the individual insured. This new product does great credit to the insurance industry. More products which defray large potential losses to the individual for the prepayment of relatively small periodic premiums should be developed in the future.

future-health insurance coverage

The popularity of the insurance method for prepaying medical bills has increased by leaps and bounds. In the last 10 years, premium volume has more than doubled (205 percent, 1947–1958).[8] The current proportion of private expenditures for medical care that are paid through the insurance mechanism is more than 25 percent.[9] Ten years ago, only 10 percent of such expenditures were in the form of insurance benefits. Prepayment of medical care through the insurance mechanism promises to become an increasingly more important instrument of medical care finance.

Hospitalization insurance has led the medical care field in growth both in benefits paid and number of people covered—about two-thirds of the United States population are now covered with some form of non-governmental hospitalization insurance. The interesting co-incidence, as stated before, is that the proportion of the consumer's medical care dollar which is spent for hospitalization has increased from 20 to 27 percent since World War II, whereas, the drug and sundry proportion has remained constant.

The physicians received a declining proportion—from 29 to 25 percent—of the consumer's medical care dollar from 1946 through 1950. Since 1951, the physicians' share has stopped declining and has leveled off to about 24–25 percent of the consumer's medical dollar per year. Here is another interesting co-incidence in prepaid surgical-medical expense. In 1946, fewer than half the number of those insured for hospitalization were insured for some form of surgical-medical coverage. This gap started to narrow in the late 1940's and has almost disappeared today (about 10 percent fewer than hospitalization insureds). It is pertinent to ask what effect the increased use of surgical-medical insurance had in arresting the declining trend in the proportion of the consumer's medical care dollar being paid to physicians.



"about two-thirds of the United States population are now covered with some form of non-governmental hospitalization insurance"

Let us look at the economic experience of the dentists. The dentists have received a constant eight to nine percent of the consumer's medical care dollar since World War II, but there is a new movement toward prepaid dental care. The *Wall Street Journal* reported in a feature article in January—

> **Dental insurance got going in a tiny way only about five years ago. Today, it's reckoned, between 500,000 and 600,000 Americans have the benefit of prepaid dental care. Though that number is dwarfed by the 123 million covered by some sort of medical care insurance, the idea is plainly catching on. The number of prepaid dental care schemes has doubled in the last two years and now, say government statisticians, stands at around 200.**

Thus the insurance mechanism promises to become an important factor in the economics of the dental profession.

what about prescription insurance?

There is a great cry for national health insurance for the aged; the National Retired Teachers' Association has just announced a group-buying scheme to reduce the cost of drug service to their members.

A union group health plan is reported in California covering 600 families. Each member is covered up to a limit of $50 in prescriptions per year. The druggists have set up a clearing house to review claims and reimburse pharmacists. The sponsors hope to improve medical care through wider utilization of medically prescribed drugs.

Medical economists tell us that hospitals and physicians are being utilized to near capacity load. This implies that additional buying power would largely be absorbed in higher prices. But the dentists, druggists and the drug industry seem to have a degree of excess capacity.

Let us examine the trends in prices for medical care services. The medical care series of the consumer price index of the U.S. Department of Labor do not contradict this thesis, that the drug industry is not being fully utilized. The consumer price index uses 1947–49 as the base for its index number, 100. Compared to the base years (1947–49) hospital rates are up 98 percent and the physicians' fee structure is up 37 percent whereas the price structure for prescriptions and drugs indicates an average price increase of only 20 percent.

Philip Elkin, associate professor of insurance at New York University has a wide background of experience from which to draw material for this article. He has taught both economics and insurance at the college level and has engaged in research projects such as a study of seriously injured workers receiving workmen's compensation for the Pennsylvania Workman's Compensation Board. In addition, Elkin has authored and co-authored books and articles in the insurance field. A graduate of Lafayette College, he earned his MA and PhD at the University of Pennsylvania and has taught at both Wharton School of Finance and Temple University.

The supply of drug products and pharmacist services seems to be more elastic than the supply of hospitals and doctors. Since greater utilization of prescription drugs would require more effective demand, let us consider the two factors required for such increase in demand. There is little difficulty in identifying the desire for improved health that might result from the greater use of drugs, therefore, the restraint on a faster expanding demand for drugs and sundries seems to be the lack of purchasing power in the hands of consumers. Perhaps the pharmacists should exploit the insurance mechanism as a new instrument for increasing purchasing power for their products through payments in advance. The hospitals have their Blue Cross, the doctors have their Blue Shield, perhaps the pharmacists should have their *Blue Buckler!*

References

[1] Roberts, Markley, *Trends in the Supply and Demand of Medical Care*, Study Paper No. 5, Joint Economic Committee, 86th Congress, p. 47 (Nov. 10, 1959)

[2] Social Security Administration, *Research and Statistics Note No. 26* (1959)

[3] Merriam, Ida C., "Social Welfare Expenditures, 1957–58," *Social Security Bulletin*, **22**, 10, 8 (October, 1959)

[4] U.S. Commerce Department, *U.S. Income and Output Series.*

[5] Kulp, C.A., *Casualty Insurance* (3rd edition), Ronald Press, N.Y., p. 9.

[6] Faulkner, E.J., "Private Health Insurance," *J. of Amer. Soc. of Chartered Life Underwriters XIV*, 1,7 (winter, 1959)

[7] op. cit., p. 27.

[8] Health Insurance Council, 13th Annual Survey (1959)

[9] op. cit., U.S. Dept. of Commerce

Denmark, Sweden——sites for FIP general assembly

The guard before the royal palace in Copenhagen will be one of the attractions for delegates to the FIP general assembly.

In the fairyland capital of Europe—Copenhagen, Denmark—pharmacists from all parts of the world will assemble the latter part of August for the 1960 meeting of the International Federation of Pharmacists and the 20th International Congress of Pharmaceutical Sciences. The meeting will be international not only in its delegations but in its actual sessions as well. Slated to start in Copenhagen on August 29, the five-day meeting will break for one day and the FIP and ICPS will move to Malmo, Sweden for a day's session.

A program crammed with information, highlighted with scientific reports and data and interspersed with social activities and sightseeing events has been planned for visitors and delegates (*see February issue* THIS JOURNAL *for program outline*).

Setting for the opening FIP meeting is a fairyland in itself—the Tivoli gardens. Built over leveled ramparts that once provided fortification for the city, the Tivoli gardens are more than an amusement park with flowers, restaurants, music and entertainment. They are a symbol of Denmark itself—charming, friendly and a bit ironic in their location. All that remains of the fortifications is the idyllic lake that mirrors the green-capped tower of the City Hall and once was part of the city moat and the boy guards with the little fairy princess, smiling and waving to the people from her coach.

Today Copenhagen does not give the impression of being an old city, yet its history dates back 10 to 15 centuries. It was in 1167 that Absalon, bishop, warrior and statesman, built a stronghold to protect the fishing village of Havn, even then centuries old. Under Absalon's protection the town became known as Köpmannaehafn and later Copenhagen. Fires in 1728 and 1795 literally burned the city to the ground and the new Copenhagen was built on top of the ruins. All that remains of the medieval city are the ruins under the Christiansborg Palace (the council and bureau will meet here before the FIP sessions open), the ruins of Jarmer's Tower, the remaining part of the Roman Catholic Bishop's Palace in the yard of the university and the Mortuary Chapel of the Holy Ghost.

The scientific sessions of the meeting will be held in University Park where the scientific institutes are located. Of special interest to many of the registrants will be the program of the section of industrial pharmacists which was established in 1955. APhA has urged support of this section to increase participation in the FIP.

On the program for industrial pharmacists will be reports on the use of colors in pharmaceuticals, standardization of registration procedures for new drugs and changing requirements for pharmaceutical education. In addition the section will sponsor a technological symposium to discuss the most recent developments in sustained release preparations with special emphasis on various tablet forms.

Because the Congress will be held at the peak of the tourist season in Copenhagen, hotel accommodations will be difficult to obtain. Everyone planning to attend the meeting should return the entry cards and hotel booking forms immediately so that proper arrangements can be made. These forms or any additional information can be obtained from APhA headquarters.

Ronald Robertson, who will become APhA president on August 19, will head an expected delegation of some 30 APhA members to the FIP meeting. Among those planning to attend are Col. Bernard Aabel, Washington, D.C.; Emily Alekna, Pasadena, California; Mrs. Alice Calnon, Los Angeles, California; Jack Cooper, Summit, New Jersey; Sylvester Dretzka, Milwaukee, Wisconsin; Don Francke, Ann Arbor, Michigan; George B. Griffenhagen, Washington, D.C.; Robert G. Hagopian, Memphis, Tennesee; Harald Holck, Lincoln, Nebraska; Raphael Jacobson, Chicago, Illinois; Lt. Col. Kenneth B. Johnson; Lt. Col. Herman A. Jones; Earl A. Kimes, Philadelphia, Pennsylvania; Janet Alice Nielsen, Glen Cove, New York; Weldon R. Rehburg, St. Petersburg, Florida; T. Werner Schwarz, San Francisco, California; Joseph V. Swintosky, Philadelphia, Pennsylvania, and Dean Arthur H. Uhl, Madison, Wisconsin.

British Pharmaceutical Conference

Pharmacists attending the FIP meeting in Copenhagen have been extended an invitation to visit the British Pharmaceutical Conference, September 5–9 in Newcastle upon Tyne, England. The BPC will feature a combination of professional and scientific sessions and social events. Hosting the event will be the Newcastle District and Northumberland Branch of the Pharmaceutical Society.

An excursion will take delegates into historic Northumberland including tea in Alnwick Castle, seat of the Duke of Northumberland, and sports events will find golfers, bowlers, and tennis players competing for trophies.

The sessions themselves will be held at King's College and accommodations have been arranged at the Eustace Percy Hall of Residence on campus or in other hotels if desired. It will be an historic occasion for the Conference for it was here in 1863 that the British Pharmaceutical Conference was born.

Reservations for the meeting may be made through APhA. To be guaranteed, hotel reservations must be received by July 1. Applications for the meeting and further information may be obtained from APhA headquarters.

ready July, 1960

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illegal sales of prescription drugs for the month of April

Florida—Albert Younan, t/a Albert's Grocery, 703 Stonewall Street, Jacksonville—Illegal sale of amphetamine. Six-month jail sentence.
Kentucky—Floyd Rollins, t/a Shamrock Texaco Service, Somerset—Illegal sale of amphetamine. One-year jail sentence.
Massachusetts—Henry H. Rendell, pharmacist, 62A Bristol Road, Medford—Illegal sale of barbiturates and amphetamine. Six-month jail sentence, suspended, placed on three-year probation.
Missouri—Thomas Pate, t/a Curtis Oil Company, Hayti—Illegal sale of amphetamine. Fined $1,000 and costs.
New Mexico—Buster Lackey, Las Cruces—Illegal sale of amphetamine. Fined $150, one-year jail sentence suspended, placed on one-year probation.

Lou "Chief" Padgett, Lou's Truck Stop employee, Las Cruces—Illegal sale of amphetamine. Fined $50, placed on one-year probation.
North Carolina—Frank W. Heslep, pharmacist, Bell's Drug Store, Beaufort—Selling tranquilizers and cortisone without doctor's authorization. Fined $200, placed on two-year probation.

Thomas H. Lever, Sr., t/a Carolina Pharmacy, Thomas H. Lever, Jr., employee, Charlotte—Selling and refilling prescriptions for amphetamine and barbiturates without doctor's authorization. Thomas H. Lever, Sr., and Thomas H. Lever, Jr., fined $350 each, placed on two-year probation.

Bob Clark Pharmacy, Inc., Robert L. Clark, president, Havelock—Selling tranquilizer without doctor's authorization. Fined $200, placed on two-year probation.

Alexander L. Hogan, t/a Hogan's Pharmacy, Kinston—Selling tranquilizers without doctor's authorization. Fined $500, placed on two-year probation.

Thomas H. Suddreth, Kinston—Illegal sale of tranquilizer. Fined $300, placed on two-year probation.

Bill's Truck Stop, Billy F. Walser, partner, and Earl Nelson Chunn, Linwood—Illegal sales of amphetamine. Partnership fined $1,000, placed on five-year probation; Chunn fined $200, placed on two-year probation.

Carteret Drug Store and Daniel S. Pigott, pharmacist, Morehead City—Selling tranquilizers and cortisone without doctor's authorization. Pigott fined $200, placed on probation; firm acquitted.

Brodie D. Arnold, t/a Arnold Rexall Drugs, Eugene M. Ussery, pharmacist, and Ruben Emory, employee, Raleigh—Selling barbiturates and tranquilizers without doctor's authorization. Arnold fined $200; Ussery, $200; Emory $100. All three placed on two-year probation.

George David Grimes, t/a Grimes Drug Store, Robersonville—Selling amphetamine, barbiturates, and tranquilizers without doctor's authorization. Grimes fined $200, placed on two-year probation.
Ohio—Thomas H. Barnes, truck driver and amphetamine peddler, Cleveland—Illegal sale of amphetamine. Two-year jail sentence.
Pennsylvania—Martin Katz, t/a Martin's Drugs, Philadelphia—Selling antibiotics and barbiturates without doctor's authorization. Fined $250.

Necrology

Elizabeth W. Taft, secretary of the Colorado Pharmacal Association, died March 16 after a short illness. Mrs. Taft had been affiliated with the association for 14 years. During that time, she saw the organization grow from a small group to one including approximately half of the pharmacists in the state. She is survived by a son and daughter and six grandchildren.

show globes take to covers

May might well have been called "show globe month" for antique collectors if prominence and space in their magazines are any criteria. Featured on the cover of the May issue of *Hobbies*, a magazine for collectors, was a collection of show globes, while pictured on the May cover of the *Spinning Wheel*, a national magazine about antiques, was a cut-glass, double-tiered show globe. Articles in the magazines threw the spotlight on two members of the AMERICAN PHARMACEUTICAL ASSOCIATION.

In *Hobbies*, Howard W. Mordue of Detroit, Michigan, describes the "Druggists' Show Bottles" and gives a brief history and background of these "time-honored symbols of the apothecary." Pictured on the cover are various types

of show globes and with the article are illustrations from the *Druggist Circular* of 1863 of other show globes.

The collection of pharmaceutical antiques which is the prized possession of Morris L. Cooper of Baltimore, Maryland is described in the *Spinning Wheel*. Pictured from this collection are a physician's instrument case of 1860, a carrying case of the 1850's, mortars and pestles of bronze from the 10th century and 1587, an original sealed one-ounce box of Bayer's aspirin manufactured in Germany in 1900, a hand-operated machine for making compressed tablets in 1885 and copper equipment used in pharmacy through the years. Cooper uses his pharmacy window for unusual and educational displays from his collection.

BEHIND THE IRON CURTAIN

Ever wonder what happens to gift parcels of western "brand" drugs sent to families behind the Iron Curtain? Well, as reported from one of the satellite countries, if the recipient wishes to use it, he can. If not, the government buys the drugs . . . supposedly as a gesture of good will to the family. ■ But actually, the western brands are bought and resold through stores to government leaders and others who can afford the price. They are sold even though the government manufactures a generic product of each type for **free** distribution. ■ Strange? Or not so strange. When it comes to a matter of life, health and disability, **trust** becomes a critical factor to anyone, anywhere – trust in the knowledge of the physician . . . trust in a known drug. And apparently even in the "land of generics" more trust is placed in the brand name system of a free economy. They acknowledge what we hold to be fundamental: **In order to exist, the brand name manufacturer must do his job better...select raw materials with greater care...exercise greater control in compounding and testing...meet more than average or acceptable specifications...know more about possible pitfalls of production through original research.** ■ These are the factors built into a reputable brand name . . . ultimately the only assurance to physician and patient of maximum drug performance.

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Pharmacy Today

Student Branches

Auburn University—The practice of pharmacy in India was discussed for Auburn student branchers at their latest meeting by *Satyan Kadamry*, a grad student in pharmaceutical manufacturing at the Alabama university. New officers were elected to serve for the coming school year—*James Wurthman*, president; *Annette McClendon*, vice president; *Betty Wagnon*, secretary, and *Barbara Ryals*, treasurer. At the May 2 meeting *Dean Samuel T. Coker* and student branch president, *James Wurthman*, spoke on the benefits of APhA activities.

College of the Pacific—President of the California Pharmaceutical Association, *Martin Winton*, spoke at the May 5 meeting of the College of the Pacific student branch. The traditional annual APhA awards banquet was also held during May.

Duquesne University—A sales representative for Eli Lilly and Company, *Ralph R. Kreuer*, was guest speaker at the April meeting of the Duquesne student branch. He pursued the topic, "A Comparison Between Quality and Inferior Vitamins." Junior pharmacy students, *Evelyn Kantorczyk*, *Anthony Cifelli*, *John Agostinelli*, *Kenneth Seethaler*, *Lynne Ferris* and *James Mancino*, were speakers at the April meeting.

Ferris Institute—*Gerald DeHaan*, detail man for the Upjohn Company, discussed detailing at the April 27 meeting of the Ferris Institute student branch. The Ferris APhA student branchers have formed a committee to work in conjunction with local druggists in Big Rapids, Michigan on a poison control center.

Fordham University—As graduation time rolls closer, Fordham student branchers are concerning themselves with plans for the future. The advantages of attending graduate school were outlined for them at a late April meeting by *Dr. Theodore Kallelis* and *Dr. William Diamantis*.

Montana State University—Future pharmacist *Ord Clark* will hold the gavel at APhA student branch affairs at the University of Montana for the coming school year. He will be assisted by *Dick Adams*, vice president; *Judy Black*, recording secretary; *Vernice Sullivan*, corresponding secretary, and *Mike Cousins*, treasurer.

New England College of Pharmacy—Members of the New England College student branch heard *Anthony Guiggio*, member of the Massachusetts State Board of Pharmacy, speak in April on "Preparation for the State Board Examinations."

Northeast Louisiana State College—Student branchers at Northeast Louisiana State are devoting their energies to planning a public service project, such as forming a volunteer blood bank for needy patients. Plans are also being made for the annual banquet and a meeting with *Dr. Nathan Watzman* as guest speaker.

Ohio Northern University—Members of the Ohio State Pharmaceutical Association's traveling team spoke late in April at a joint meeting of the Ohio Northern student branch and the Kappa Psi pharmaceutical fraternity. *Phil Surdock* will head ONU's student branch during the coming school year. Other new officers are *Larry Shaup*, vice president; *John Ciminello*, secretary, and *Hank Cole*, treasurer.

Oregon State College—Oregon State APhA student branchers have elected *William Mead* as president for the coming year. Serving with him will be *Jerry Bernardi* as vice president; *Ellen Kan*, recording secretary; *Carol King*, corresponding secretary; *Kenneth Sutherlin*, treasurer; *Gerald Dudley*, historian, and *Professor Herman Forslund*, faculty adviser.

Philadelphia College of Pharmacy and Science—The value of professional organizations was discussed by *Dr. Peterson*, adviser for District II, at a recent meeting of the Philadelphia College of Pharmacy and Science student branches. New officers are *Mavin J. Meyers*, president; *William Dougherty*, vice president; *David S. Tice*, recording secretary, and *Fred M. Eckel*, corresponding secretary.

South Dakota State College—*Tyrone Steen* is the new president of the student branch at South Dakota State College. Assisting him during the year that lies ahead will be *Gerald Wannarka*, vice president; *Clifford Van Hove*, treasurer; *Sharon Mix*, secretary, and *Dr. Kenneth Redman*, faculty adviser.

St. Louis College of Pharmacy—*Herman Winkelmann*, editor and executive manager of the St. Louis Retail Druggist's Association, spoke at the most recent meeting of the student branch at St. Louis College of Pharmacy. He discussed the work of the association, particularly in relation to the Fair Trade Bill, the Forand Bill and mail-order prescriptions.

Temple University—"What the Pharmacist Should Know About Cancer Control," was discussed at a March 30th convocation sponsored by Temple's student branch. *Dr. Joseph Gambescia*, American Cancer Society, spoke on this topic. New student branch officers are *Robert Peyakovich*, president; *John Deppen*, vice president; *Anne Malloy*, recording secretary; *Carole Patler*, secretary, and *Ted Van Devere*, treasurer.

University of Arizona—Plans were made at the last student branch

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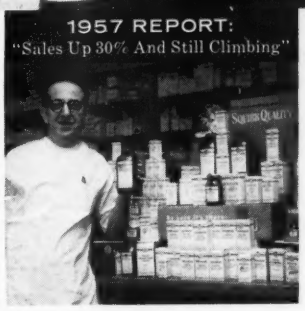

THE PROOF OF THE PROGRAM IS IN THE PROFITS

"Since 1957, when we first recognized the importance of the Squibb 'Fight Back' program, our vitamin sales have increased 62 percent! Our experience proves that despite all competition—door-to-door campaigns, mail order promotions, and off-brand 'deals'—the pharmacy that is really interested in profits can not only retain vitamin sales, but can significantly increase them. The only secret is to go after this business and to make full use of sales promotional material provided by firms such as Squibb.

"We are certainly going to continue the 'Fight Back' program at Havaline Pharmacy, and as a matter of fact are looking forward to an even bigger vitamin year in 1960."

Herman Shensky

Herman Shensky
Havaline Pharmacy
Philadelphia, Pa.

SQUIBB

Squibb Quality—The Priceless Ingredient

Student recruitment was an important part of the exhibit set up by the New Hampshire Pharmaceutical Association at the state's Public Health Fair held May 6 in Littleton. Educational literature and brochures about the profession of pharmacy were available at the exhibit, a colorful display of drugs and medicines and photos depicting the history of pharmacy. Pictured before the display are (*left to right*) Norman F. Bell of the P.J. Noyes Company; Grace E. Hannan, secretary-manager of the association, and Lewis Bragg, also of the Noyes Company.

meeting for the annual senior banquet. Announcement was made that the Arizona group won the Student Branch Questionnaire Survey for National Pharmacy Week, 1959. *Dave Ogren*, representative of the Becton Dickinson Company, spoke.

University of Illinois—Visitors were given an insight into daily procedures at a college of pharmacy as APhA student branchers helped present a pharmacy open house. Newly elected officers for the 1960–61 school year are *Howard Michaels*, president; *Stuart Horn*, vice president; *Sandra Mueller*, secretary, and *Alan Kelly*, treasurer.

University of Michigan—New officers at the University of Michigan student branch are holding council meetings and planning sessions with *Dean Thomas D. Rowe* and adviser *Alex Berman*, to prepare for the coming year's activities of APhA. They are, *Kenneth D. Vanderhyde*, president; *Margaret A. Sowinski*, vice president; *Mary C. Walker*, secretary, and *Donald Hong*, treasurer.

University of Washington—Newly elected officers at the University of Washington student branch are *Roger Aue*, president; *Bill Hollingsworth*, vice president; *Janet Eltz*, secretary, and *Gurine Nordby*, treasurer. *George B. Griffenhagen*, director of the division of communications at APhA, spoke to the group on April 28.

University of Wisconsin—*Dr. Robert W. Hammel* of the school of pharmacy recently addressed the student branch of APhA at the University of Wisconsin-Milwaukee. He discussed drug prices and the current Kefauver hearings.

Wayne State University—*David Stiles* of Abbott Laboratories presented factual data in reply to recent accusations made against the pharmaceutical industry when he spoke at the May meeting of the Wayne State student branch. New officers are *Sam Ciammitti*, president; *Mary Aboud*, vice president; *Tom Lufkin*, corresponding secretary; *Sylvia Romanchuk*, recording secretary, and *Larry Pilots*, treasurer.

District IV—Wayne State University played host to members of APhA student branches from Wisconsin, Illinois, Kentucky, Ohio, Indiana and Michigan at the District IV annual meeting on April 7, 8 and 9. The opening address at the convention was given by *Stephen Wilson*, Wayne State pharmacy dean. Other speakers included *Don Meredith* of the Upjohn Company and *Robert Gillespie*, vice president-elect of APhA.

District VI—A speech—"Who is Throwing Stones at What?"— by *David Stiles* of Abbott Laboratories highlighted the District VI convention of APhA student branches. Other participants were *Dr. G.F. Redding*, professor of bacteriology at the St. Louis College of Pharmacy, and panelists from the St. Louis college. New officers elected at the meeting in St. Louis were *Glenn Lonhart*, president; *Roland McClellan*, vice president; *Jewel Curtis*, secretary-treasurer, and *Dr. W.J. Sheffield*, faculty advisor.

Lunsford Richardson Pharmacy Awards—Nearly $10,000 has been awarded to APhA branches, students and colleges by the Lunsford Richardson Pharmacy Awards program, sponsored by Vick Chemical, Wm. S. Merrell and Walker Laboratories. First prize winners in graduate competition were *Harold L. Smith*, Medical College of Virginia; *Pushkar N. Kaul*, University of California; *James P. Leyda*, Ohio State University, and *Norbert Gruenfeld*, University of Wisconsin.

Local Branches

Indianapolis—*Dr. Austin Smith*, PMA president, was the main speaker at the Indianapolis branch seminar on modern pharmacy May 10 and 11 at Butler University college of pharmacy. Registrants were given passes to a special showing of scientific exhibits at the National Science Fair-International. New officers installed were *Paul Delbauve*, president; *Kenneth Wood*, vice president; *Fred C. Hecker*, president-elect, and *William Lucas*, secretary-treasurer.

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APhA president, Howard C. Newton, spoke recently to a convocation sponsored by the University of Rhode Island student branchers. In his lecture he told the students of the role played by APhA in helping to solve the present day problems facing the profession of pharmacy. Pictured after the meeting at Rhode Island are (*standing, left to right*) Eugene Parker, president of the student branch; Dean Newton; Dr. Heber W. Youngken, Jr., dean of the university's college of pharmacy; John Crowley, and (*seated, left to right*) William Cotter, Jr.; Joan Shobrinsky and Russell Bissette.

Memphis—A panel discussion on the topic, "New Drugs," was the major attraction at the April meeting of the Memphis branch. Moderated by *Dr. M.E. Hamner*, the panel consisted of *Jim Cummings*, *Vernon Place* and *Bill Djerf*.

Michigan—"Advances in the Basic Sciences" themed the 17th spring conference of the Michigan Academy of Pharmacy. Speakers at the conference, held in April at Wayne State University, were *Dr. Harry M. Crooks, Jr.*, and *Dr. Burton Wilner* of Parke, Davis and Company, *Dr. Walter Hoffman*, director of Wayne State's computing center and *Dr. George A. Hottle* of HEW. The Academy is sponsored by the Michigan branch of APhA.

Northern California—Branch members, in northern California were hosts to *Dr. William S. Apple*, APhA secretary, during his trip to the West Coast in April. In a speech to the group at Berkeley, Dr. Apple discussed the present crisis in pharmacy, pointing out that the profession is heading toward complete government control. He also emphasized the need for increased professional unity.

Oregon—At the April meeting of the Oregon branch, four panel members discussed the current salary structure in pharmacy. The pharmacist-panelists were *Dick Walsinger*, *Fred Meek*, *George Gerding* and *Fred Grill*. Their opinions ranged from "a pharmacist's salary is his own responsibility" to "pharmacists' salaries will continue to rise with supply and demand."

Philadelphia—*Dr. Takeru Higuchi*, professor of pharmacy at the University of Wisconsin, was guest speaker at the April meeting of the Philadelphia APhA branch. Speaking on the topic, "Pharmaceutical Formulation and Percutaneous Absorption," he discussed mechanisms for the penetration of drugs through intact skin and reviewed factors which influence the rate of absorption.

Associations

American Foundation for Pharmaceutical Education—*Miss Arle Z. Scott*, senior pharmacy student at Oregon State, has been awarded the 1960 Edwin Leigh Newcomb Award in pharmacognosy. AFPE's $250 cash award, made annually in honor of the late *Dr. Edwin Leigh Newcomb*, will be presented at the 1960 meeting of the Plant Science Seminar in July.

District of Columbia Pharmaceutical Association—In honor of his many contributions to the profession of pharmacy and for his interest in the association, *Dr. Robert P. Fischelis* received an inscribed scroll from the District of Columbia Association at a recent meeting.

New Jersey Pharmaceutical Association—"Open Forums" for the public consumer will be offered during the five-day meeting of the New Jersey Pharmaceutical Association in Atlantic City, June 19–23. The public will be invited to participate in forums at the 90th convention of the group where the facts on drug prices will be available for everyone.

Pharmaceutical Manufacturers Association—At the second annual meeting of PMA held April 4–6 in Boca Raton, Florida, the following officers were elected—*Harry J. Loynd*, chairman of the board; *E.N. Beesley*, chairman-elect; *John T. Connor*, *George R. Cain* and *S.F. Valentine*, vice presidents, and *S. Barksdale Penick, Jr.*, treasurer. Staff officers elected by the board are *Austin Smith*, president; *Karl Bambach*, executive vice president and secretary; *J. O'Neill Closs*, administrative vice president, and *John K. Worley*, general counsel.

Rho Pi Phi—The first annual Rho Pi Phi "Man of the Year Award" went to *Dr. Morton J. Rodman*, professor of pharmacology at Rutgers University, Newark, New Jersey. A plaque was given to Dr. Rodman by the fraternity for his outstanding contributions to the profession of pharmacy and to the fraternity.

Rho Chi—*Dr. J. Oliver Lampen*, director of Rutgers institute of microbiology, told Rho Chi members at Rutgers University about advances in microbiological research at a recent meeting. The occasion was the induction of 10 new members into the pharmaceutical honor society.

Colleges

Duquesne University—The 1960 Muldoon Lecture at Duquesne University was given by *George B. Griffenhagen*, director of the APhA's division of communications, who chose for his topic, "The Fallout from the Kefauver Hearings." The Muldoon Lecture was held May 3 in conjunction with the dedication of the Muldoon Industrial Pharmacy Laboratory and the annual alumni dinner.

Ferris Institute—The seventh annual pharmacy seminar held May 4 at Ferris Institute gave Michigan pharmacists the opportunity to learn about latest developments in the profession. Pharmacists from Michigan and neighboring states heard addresses by men from pharmaceutical industry, hospital research and by educators. Among those who addressed the group was *J. Warren Lansdowne*, chairman of APhA's House of Delegates.

University of Arkansas—The duties of vice president for health sciences and of assistant to the president have been assumed at the University of Arkansas

Dr. Charles H. Larwood, dean of the Toledo University college of pharmacy, looks on as the Alpha Zeta Omega chapter of Toledo is honored on its tenth anniversary. Receiving a certificate in honor of the occasion is the Sigma directorum, Melvin Levine (*right*). The presentation was made by Alex S. Ancel of Cleveland, Ohio, who founded the Sigma chapter in 1950.

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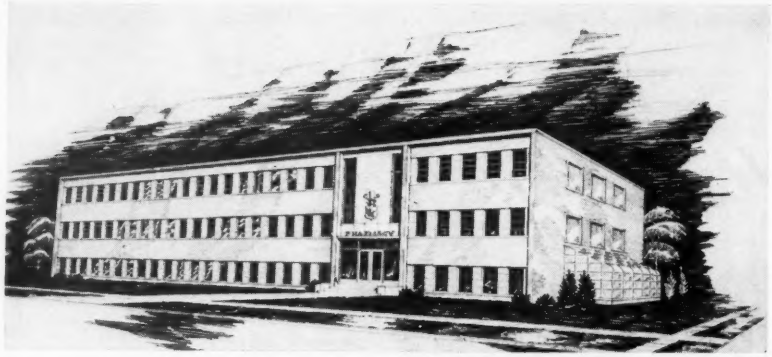

Nearing completion is a new pharmacy building for the North Dakota Agricultural College in Fargo. Its construction was made possible by appropriations from the state legislature and a grant from the National Institutes of Health for research facility purposes. Designed in keeping with other buildings on the campus, the new pharmacy building will be one of the most modern of its kind in the country. It will house the departments of pharmaceutical chemistry, pharmacy, pharmacology, pharmacognosy and pharmacy administration. Space has also been provided for a pharmacy museum and a greenhouse to raise drug-producing plants for teaching purposes in the department of pharmacognosy.

by *Storm Whaley*. A recent speaker to the student body was *David Stiles*, director of marketing for Abbott Laboratories.

University of California—Close to 400 alumni and guests gathered at the University of California to hear *Stanley Mosk*, California's attorney general, discuss the role of the pharmacist in narcotic enforcement. The occasion was the reunion of the Pharmacy annual Alumni Association. The association's award for outstanding service to the profession and the community was awarded to *Augustus J. Affleck*, a former APhA vice president.

Augustus J. Affleck

University of Buffalo—Speakers at the UB pharmacy alumni association spring clinic and dinner were *Duncan Whitehead*, superintendent of the New York State Hospital for the mentally ill; *Dr. Robert P. Fischelis*, representative of the *American Druggist; Ray Schlotterer*, executive secretary, FWDA; *Charles W. Beall*, vice president of McKesson and Robbins; *Charles Simon*, advisor to the Erie County Pharmaceutical Association Investment Club, and *Rev. Lawrence H. Hall*, St. Paul's Episcopal Church in Cleveland, Ohio. The clinic was held April 28 in Buffalo.

University of Illinois—Outstanding scholars at the University of Illinois college of pharmacy were honored at the annual honors day convocation held May 18. *Dean G.L. Webster* was master of ceremonies for the convocation and tea.

University of Texas—Narcotics handling, drug pricing and laws affecting the profession were major topics discussed by some 100 pharmacists and hospital administrators attending the 12th annual University of Texas Hospital Pharmacy Seminar in April. Speakers included *Vernon T. Trygstad*, ASHP president; *William E. Woods*, National Pharmaceutical Council; *William Helier* and *George Provost*, University of Arkansas Hospital, and a husband-wife team of hospital pharmacists, *Dr. and Mrs. Don E. Francke*, Ann Arbor, Michigan.

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International

Canadian Pharmaceutical Manufacturers Association—*Lawrence J. Haskett* of Toronto has been elected a director of Canadian Pharmaceutical Manufacturers Association. Haskett is vice president and general manager of the Upjohn Company of Canada.

International Health Exhibition—American industries, scientific groups and agencies of the health field are invited to take part in the International Health Exhibition to be held in Rome, August 20 to November 5. The international Health Exhibition is the only worldwide event of its kind, specializing in exhibits related to hygiene and sanitation. Information may be obtained from Mostra Internazionale Della Sanita, Delegazione per le Partecipazioni Industriali, Via Olmetto 5, Milan, Italy.

Wyeth International, Ltd.—A group of Finnish physicians and their wives had a close-up view of the operations of a major American pharmaceutical manufacturing company recently when they toured research and production facilities of Wyeth Laboratories in Radnor and West Chester, Pennsylvania. One of five such medical groups from Finland visiting the company, the doctors also visited a number of medical centers in eastern United States before returning to Finland last month.

Pharmacists

Tribute was paid to four pharmacists, leaders in public service, on recent "Original Amateur Hour" shows. Those honored on the telecasts were *Morris L. Cooper*, Baltimore, Maryland; *Richard Hofmann*, Ottumwa, Iowa; *John Sladnik*, Miami Springs, Florida and *Clyde Roberts*, Huntington, West Virginia.

Clarence W. Sondern—A chemical and pharmaceutical consulting service has been established in Morristown, New Jersey by *Clarence W. Sondern*, a life member of APhA. For the last ten years, Sondern has held administrative posts in research and quality control with the Warner Lambert Pharmaceutical Company.

Richard S. Strommen—A civic honor has come to Richard S. Strommen of the University of Wisconsin extension services in pharmacy. He was recently elected president of the city council of Fort Atkinson, his home town. Strommen has served as president of the board of directors of the Wisconsin Pharmaceutical Association and is presently serving as secretary-treausrer of the Wisconsin graduate chapter of Kappa Psi pharmaceutical fraternity.

To Dr. Swain (seated), Harrison Fraker presents a check to be used for his favorite pharmaceutical endeavor while on the table stands a 300-year old mortar and pestle, a tribute from Dr. Fred Lascoff.

Robert L. Swain—A former APhA president, *Dr. Robert L. Swain*, was honored at a testimonial dinner in New York on May 13. More than 500 leaders of the pharmaceutical industry attended the affair held in recognition of Swain's achievements as a leader in American pharmacy. Editor in chief of *Drug Topics* and *Drug Trade News*, Swain is a Remington medalist and was chairman of the *USP* board of trustees for 15 years *(see editorial)*.

a challenge from President Newton

Re-iterating a challenge he issued to the Chicago Branch of APhA and the Cape Cod Pharmaceutical Association in April, President Howard C. Newton asked APhA members in a letter to "enroll one new member in our Association during the next 60 days. In meeting this challenge," he continued, "you will be of great service to these new members, to yourselves and to your profession.

"It takes time, money, skilled personnel and enthusiasm to build the kind of organization that the profession of pharmacy desperately needs," he explained and stressed that "the time has come when we must put speed into our efforts. Our profession is besieged with problems that can be satisfactorily solved only if APhA is supported by a majority of our profession."

President Newton spoke to the Chicago branch on April 12 and to the Cape Cod group on April 13. In his talks he outlined briefly the actions taken by the House of Delegates in Washington.

Describing pharmacy as "a dynamic field of endeavor," he pointed out the need for pharmacists to support APhA so that solutions can be found to the problems being created by the Kefauver hearings and the sudden rise of mail-order prescription schemes.

"Success in any field attracts attention," he said and cited as an example the eagerness of politicians to associate themselves with projects dealing with health which is so closely connected with the welfare of everyone. Much of the proposed legislation, such as the Forand bill, he added, offered "a real threat to the efficiency of our health team."

In conclusion President Newton pointed out one of the advantages in being a member of APhA—"an expanded staff of skilled specialists at APhA headquarters is able and willing to carry out whatever plans are made to further the advancement of the profession of pharmacy." ■

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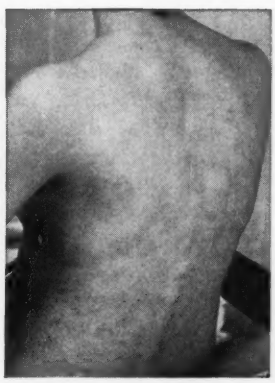

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Drug Reference

For easy reference—a listing of Journal pages for HDR by month. January, 48–55; February, 108–114; March, 174–186; April, 235–251; May, 308–326; June, 374–394.

An all-inclusive, cumulative, six-month alphabetical listing of new drugs and dosage forms, changes in available dosage forms and clinical test results of newer drugs. *Notations:* NND—abstracts of descriptions of new and nonofficial drugs by AMA Council on Drugs. Dosage—adult unless otherwise indicated. Clinical (clin.)—investigational drug not available commercially. O-t-c—salable over-the-counter (without prescription). ℞—prescription required. *Abbreviations:* amp. (ampul), b.i.d. (twice a day), cap. (capsule), combn. (combination), equiv. (equivalent), i.m. (intramuscular or -ly), i.v. (intravenous or -ly), inj. (injection), liq. (liquid), lot. (lotion), oint. (ointment), ophth. (ophthalmic), q.i.d. (four times a day), s.c. (subcutaneous or -ly), soln. (solution), suppos. (suppository or -ies), susp. (suspension), syr. (syrup), tab. (tablet), tbsp. (tablespoon or -ful), tsp. (teaspoon or -ful), t.i.d. (three times a day).

a/50 caps. (Podiatrex), p. 108.

Acetaminophen, see combn. in Triurate tabs. (McNeil), p. 326.

Acetophenetidin, sulfhemoglobinemia effect, p. 48.

Acetylcarbromal, see combns. in Amril tabs. (Amfre-Grant) p. 174; in Carbadex caps. (Sanford), p. 176; in Perivas tabs. (Amfre-Grant), p. 318.

N-Acetyl-*p*-aminophenol, see Anelix elix. (Kirkman), p. 174; combns. in Dipralon Forte tabs. (Arnar-Stone), p. 380; in Isogesic tabs. (Arnar-Stone), p. 242; in Novahistine Singlet tabs. (Pitman-Moore), p. 111; in Syndecon tabs. and for oral soln. (Bristol), p. 325; in Tetrex AP syr. (Bristol), p. 325; in Thorphan syr. (Bryant), p. 114.

Acnestat creme (Dale), p. 235.

Ado-Caps/plus caps. (Crystal), p. 174.

Aerocaps caps. for C.M.C. Insufflator (Consol. Midland), p. 174.

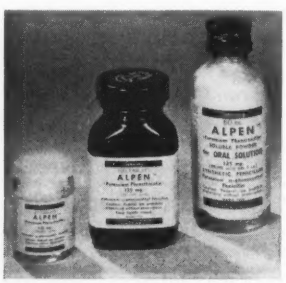
Aldactone tabs. (Searle), p. 48; p. 108.

Aldimate tabs. (Crestmed), p. 48.

Allantoin, see combns. in Altara gell (Dome), p. 48; in Domerine medicated shampoo (Dome), p. 380; in Sebical cream (Reed & Carnrick), p. 248.

Almezyme caps. (Meyer), p. 48;—liq. (Meyer), p. 174.

Alpen Tablets and for Oral Solution (Schering). Per tab.: 125 mg. and 250 mg. potassium phenethicillin (potassium α-phenoxyethyl penicillin); for oral soln.: 1.5 Gm. powder in bottle to make 60 cc. of soln. (125 mg./5 cc.). For infections due to penicillin-susceptible organisms. *Dosage:* Orally, 125–250 mg. t.i.d. Both strength tabs. in bottles of 25 and 100; 60-cc. bottle with powder for oral soln. ℞.



Alpha-phenoxyethyl penicillin potassium, see potassium phenethicillin, p. 388.

***dl*-Alpha tocopherol,** see vitamin E (Pfizer), p. 394.

***dl*-Alpha tocopheryl acetate,** see vitamin E (Pfizer), p. 394.

Altara gell (Dome), p. 48.

Alumi-Cream (Ivenex), p. 308.

Alumina gel, see combn. in Oxaine susp. (Wyeth), p. 246.

Aluminum aspirin, see Analexin-AF tabs. (Irwin, Neisler), p. 108; combn. in Delenar tabs. (Schering), p. 238.

Aluminum hydroxide, see combns. in Decagesic tabs. (Merck S&D), p. 177; in Loupred tabs. (Louisons), p. 110.

Aluminum hydroxide gel, see combn. in Balvis tabs. (Carnrick), p. 309.

Aluminum powder, see combn. in Alumi-cream (Ivenex), p. 308.

Aminoacetic acid, see combns. in Lixocol elix. (Lannett), p. 244; in Lycol elix. (Lannett), p. 383.

Amino acid-vitamin-iron combn., see combn. in Basigets ultima tabs. (Kendall), p. 176.

Aminoglutethimide, see Elipten tabs. (Ciba), p. 239.

Aminophylline, see Dura-Tab S.M. Aminophylline tabs. (Wynn), p. 314; combn. in Res-o-phyllin caps. (Sanford), p. 390.

***p*-Aminosalicylic acid,** see Phenistix test (Ames), p. 112.

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Ammonium salicylate, see combn. in Bromul syr. (Haug), p. 310.

Amobarbital, see combns. in Ado-Caps/plus caps. (Crystal), p. 174; in Dexabar Medsule caps. (Medco), p. 238; in Panrexin TP Panseals (Pan American), p. 112; in Sedamasal caps. (Finley), p. 184; in Tydex-plus caps. (Tyler), p. 326.

Amphedrine-M tabs. (VanPelt & Brown), p. 235.

Amphenidone, see Dornwal tabs. (Maltbie), p. 312.

***d*-Amphetamine HCl,** see combns. in Carbadex caps. (Sanford), p. 176; in Histabar plus Medsules (Medco), p. 242.

***d*-Amphetamine sulfate,** see Medex Medsule caps. (Medco), p. 244; Tydex caps. (Tyler), p. 326; combns. in Ado-Caps/plus caps. (Crystal), p. 174; in Appetrol tabs. (Wallace), p. 48; in Bamadex tabs. (Lederle), p. 49; in Crystodex tabs. (Crystal), p. 238; in Dexabar Medsule caps. (Medco), p. 238; in Eskatrol Spansule caps. (SK&F), p. 51; in Panrexin TP Panseals (Pan American), p. 112; in Tydex-plus caps. (Tyler), p. 326.

***l*-Amphetamine sulfate,** see Lavabo tabs. (Superior), p. 110; combn. in Amphedrine-M tabs. (VanPelt & Brown), p. 235.

Amphotericin B, see combn. in Mysteclin-F for aqueous drops and for syrup (Squibb), p. 181.

Amphotericin B NND, p. 308.

Amril tabs. (Amfre-Grant), p. 174.

Amurex caps. (Reid), p. 174.

Analeptone-anabolic tabs. (Reed & Carnrick), p. 48.

Analexin and **Analexin-AF** tabs. (Irwin, Neisler), p. 108; now in bottles of 500 as well as 100.

Android Tablets (Brown Pharm). Per tab. (round, yellow): methyltestosterone 2.5 mg., thyroid ext. 10 mg., glutamic acid 50 mg., thiamine HCl 10 mg. For diseases associated with hypogonadism: male impotence, female frigidity, hypercholesteremia. *Dosage:* 1 tab. t.i.d. Bottles of 100 and 500. ℞.

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Anelix elix. (Kirkman), p. 174.

Anhydrohydroxyprogesterone, see combns. in Predictabs tabs. (Drug Specialties), p. 112; in Progestroid tabs. (Brown Pharm.), p. 388.

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Anti-N Lectin (Hyland), p. 174.

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APC mixture, see combn. in Di-cold tabs. (Haug), p. 50; in Rapadyne tabs. (Knoll), p. 184.

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Ascorbic acid, see Liqui-cee (U.S. Standard), p. 180; combns. in Calsans tabs. (Podiatrex), p. 109; in Coferic tabs. (Crestmed), p. 50; in Di-cold tabs. (Haug), p. 50; in Normacap tabs. (Podiatrex), p. 111; in Noscaphen wafers (Bruce Parenterals), p. 111; in Thorphan and Thorphan, Jr. syrs. (Bryant), p. 114; in Velacycline injs. (Squibb), p. 186.

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Aspirin and Bufferin—effect on gastroacidity, p. 108.

Aspirin w/$Al(OH)_3$ and $Mg(OH)_2$, see combn. in Synex-SA caps. (Phila. Ampoule), p. 114.

Aspred-C Tablets (Maney). Per tab.: prednisone 0.75 mg., salicylamide 325 mg., vit. C 50 mg. For mild rheumatic conditions. Cautions as for corticosteroid therapy. *Dosage:* Orally, initial 2–3 tabs. q.i.d. until desired response then reduce gradually to minimum effective maintenance-dosage. Bottles of 100 and 1000. ℞.

Atarax (Roerig), see hydroxyzine HCl in dental practice, p. 52;—parenteral soln. (Roerig), p. 48.

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Azuresin NND, p. 49.

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Belfer tabs. (Durst), p. 49.

Belakoids TT tabs. (Columbus), p. 309.

Bellabil Tablets (Whittier). Per tab.: dehydrocholic acid 250 mg., hyoscyamine sulfate 0.1037 mg., atropine sulfate 0.0194 mg., hyoscine HBr 0.0065 mg., phenobarbital 16.2 mg. For biliary distress, smooth muscle spasm and for sedation. Dryness of mouth and throat, flushing and skin dryness can occur. *Dosage:* 1–2 tabs. t.i.d. Bottles of 100. ℞.

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Benulone susp. (Merrell), p. 176.

Benzonatate NND, p. 49.

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Bio-Tosmosan HC eardrops (Doho), p. 236.

Bismuth sodium triglycollamate, see Bistrimate tabs. (Smith, Miller & Patch), p. 109.

Bistrimate tabs. (Smith, Miller & Patch), p. 109.

Bis-tropamide, see Mydriacyl ophth. soln. (Alcon), p. 316.

Bithionol, see combn. in Domerine medicated shampoo (Dome), p. 380.

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Calurin (Smith-Dorsey), see combn. in Ursinus tabs. (Smith-Dorsey), p. 114.

Cantil (Lakeside), see mepenzolate-methylbromide NND, p. 180.

Capre Tablets (Marion). Per tab. (coral, Satin Seal coated): vit. A acetate 5000 u., D 400 u., B_1 2 mg., B_2 2 mg., B_6 5 mg., B_{12} (cobalamin conc.) 2 mcg., C 100 mg., calcium pantothenate 1 mg., folic acid 0.3 mg., niacinamide 10 mg., ferrous fumarate 150 mg., calcium (oyster shell) 200 mg., sorbitol 100 mg. For vitamin and mineral deficiencies. Digitalized patients should not receive calcium. *Dosage:* 1 tab. daily, after lunch or dinner. Apothecary bottle. O-t-c.

Capsebon (Pitman-Moore), see cadmium sulfide, NND, p. 49.

Caramiphen ethanedisulfonate, see combn. in Dondril tabs. (Whitehall), p. 239.

Carbadex caps. (Sanford), p. 176.

Carbamide (urea), see combn. in Carbamine packets (Key), p. 310.

Carbamine Packets (Key), p. 310.

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Choline salicylate, see combn. in Pharycidin conc. (Purdue Frederick), p. 53.

Chromic radio-phosphate susp. (Abbott), p. 238.

Chymoral Tablets (Armour Pharm.). Per tab. (red, oval, enteric coated): enzymatic activity equiv. to 50,000 Armour u.; trypsin and chymotrypsin activity in a ratio of approx. 6:1. In conditions involving systemic anti-inflammatory therapy. *Dosage:* Oral, initial, 2 tabs. q.i.d.; maintenance, 1 tab. q.i.d. Bottles of 48. ℞.

Chymotrypsin see Chymoral tabs. (Armour), p. 379; —inj. (Phila. Ampoule), p. 238.

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Codeine phosphate, see combn. in Tussahist syr. (Finley), p. 186.

Coferic tabs. (Crestmed), p. 50.

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Cyclophosphamide, see Cytoxan for inj. and tabs. (Mead Johnson), p. 50.

Cyclospasmol (Ives-Cameron), see cyclandelate NND, p. 50.

Cynal tabs. (Lloyd Bros.), p. 238.

Cytomel tabs. (SK&F). The 25-mg. tabs. are supplied in bottles of 1000 as well as 100.

Cytoxan for inj. and tabs. (Mead Johnson), p. 50.

Cytran tabs. (Upjohn), p. 312.

Danthron, see combn. in Doxisul tabs. (Crestmed), p. 50.

Daptren tabs. (Davis & Sly), p. 177.

Darcil Tablets (Wyeth). Per tab. (peach, scored): 250 mg. (400,000 u.) phenethicillin potassium (potassium α-phenoxyethyl penicillin). For bacterial infections due to penicillin-susceptible organisms. *Dosage:* Orally, 1 tab. t.i.d. Vials of 36. ℞.

Decadron (Merck S&D), see combn. in Decagesic (Merck S&D), p. 177.

Decagesic tabs. (Merck S&D), p. 177.

Declomycin syr. (Lederle), p. 312.

Dehydrocholic acid, see combns. in Almezyme caps. (Meyer), p. 50; in Bellabil tabs. (Whittier), p. 376.

Delbenol Capsules and Emulsion (Brown Pharm.). Per cap.: safflower oil 1150 mg. (linoleic acid 865 mg., mixed tocopherols 0.024%, vit. B_6 3 mg.). Per tbsp. emulsion: linoleic acid 4500 mg., vit. B_6 4.5 mg., and mixed tocopherols 0.004%, with glycerin, polysorbate 60, sorbitan trioleate, calcium cyclamate, sodium benzoate 0.1%, and propyl gallate 0.004%. Nutritional supplement with cholesterol lowering action. *Dosage:* 1–2 caps. or 1 tbsp. emulsion t.i.d. Bottles of 89 caps., emulsion in pints. ℞.

Delenar tabs. (Schering), p. 238.

Demethylchlortetracycline, see Declomycin syr. (Lederle), p. 312.

Depinar inj. (Armour), p. 50.

Depo-Medrol (Upjohn), see methylprednisolone acetate NND, p. 384.

Deprol Tablets (Wallace) containing 2 psychotherapeutic drugs (meprobamate 400 mg. and benactyzine HCl 1 mg. per pink, scored tab.) was reported to be effective in bringing 76% of hundreds of patients out of states of mental depression. Dr. P.N. Papas told the Conference on Mental Depression at Waltham, Massachusetts, April 20, that in many cases Deprol eliminated the need for electroshock and other therapy. *Dosage:* Orally, 1 tab. q.i.d. Precautions and contraindications are same as for each ingredient alone. Bottles of 50. ℞.

Dermagel w/predinsolone cream (Bruce Parenterals), p. 109.

Deserpidine, see combn. in Oreticyl tabs. (Abott), p. 111.

Desoxycholic acid, see combn. in Therabile tabs. (Ascher), p. 185.

***dl*-Desoxyephedrine HCl,** see combns. in Bonadene syr. (Bonar), p. 310; in Rhinalgan HC nasal spray (Doho), p. 184.

Dexabar Medsule caps. (Medco), p. 238.

Dexamethasone, see combns. in Decagesic tabs. (Merck S&D), p. 177; in Delenar tabs. (Schering), p. 238.

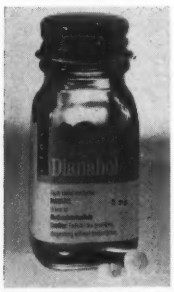
Dextran in nephrosis, p. 109.

Detromethorphan HBr, see combns. in Lerja expectorant (Burns), p. 244; in Pedicol pediatric liq. (Lemmon), p. 182; in Thorphan and Thorphan, Jr. syrs. (Bryant), p. 114; in Tussin liq. (Dumas-Wilson), p. 186.

Dextromoramide, see Palfium, p. 112.

Diagnex Blue (Squibb), see azuresin NND, p. 49.

Dianabol Tablets (Ciba). Per tab. (pink, scored, CIBA - marked): methandrostenolone 5 mg. Tissue - building compound conserves body protein and promotes weight gain in form of lean tissue. In underweight elderly patients, restores muscle tone, stimulates appetite, aids reconstitution of bone matrix and relieves pain and increases motility in senile osteoporosis. Also for chronically ill and convalescent patients. *Dosage:* 1–2 tabs. daily; in severe debility states, 2–4 tabs. daily for 3 wks. then reduce to 1–2 tabs. daily for maintenance. In prolonged therapy interrupt after 6 wks. for an interval of 2–4 wks. before resuming treatment. Contraindicated in presence of prostatic carcinoma or severe liver damage; use cautiously if liver impairment is suspected. Prolonged administration or high doses may cause mild androgenicity (acne, hirsutism, or voice changes) which is reversible on withdrawal. Nausea and edema may occur occasionally. Bottles of 100. ℞.



Diazomycins A, B, and C, clin., p. 50.

Di-cold tabs. (Haug), p. 50.

Dicyclomine HCl, see combns. in Benulax susp. (Merrell), p. 176; in Benulone susp. (Merrell), p. 176.

Dicyclomine HCl NND, p. 50.

Didex Tablets (Upjohn). Per tab.: 25 mg. benzphetamine HCl, chemically (+)N - benzyl - N,α - dimethylphenethylamine HCl, an appetite depressant. A double-blind study with 43 obese patients, in which drug dosage was 1 tab. 15 minutes before each meal and double dosage if weight loss was unsatisfactory, showed a persistent weight loss during 20 wks. Double dose was used by 14 while 6 patients continued 25-mg. dose. Results also indicate that benzphetamine is nontoxic, does not depress mood, and does not overstimulate patient to requirement of sedative for nervousness. See B. Simkin and L. Wallace, *Current Therap. Res.*, **2,** 33 (Feb. 1960). Clin.

Diethoxy (diethoxybenzyl) isoquinoline HCl, see combns. in Neopavrin w/phenobarbital tabs. and elix. (Savage), p. 246; in Neopavrin-A tabs. (Savage), p. 246.

Dihydrocodeinone, see combn. in Bonadene syr. (Bonar), p. 310.

Dihydrocodeinone bitartrate, see combns. in Endotussin pediatric syr. (Endo), p. 239; in Hasanone #2 syr. (Haskell), p. 178; in Medatussin syr. (Medco), p. 316; in Nolamine expectorant syr. (G.W. Carnrick), p. 53; in Rapadyne tabs. (Knoll), p. 184.

Dihydroxyaluminum aminoacetate, see Aldimate tabs. (Crestmed), p. 48; combn. in Malglyn compound magma (Brayten), p. 180.

Diiodohydroxyquin see combn. in Cortar-quin (Dome), p. 50.

Dimethpyrindene maleate, the most active antihistaminic of a group of substituted indenes, is chemically 2-{1-[2-(2 - dimethylaminoethyl) - 3 - indenyl] - ethyl}pyridine maleate. The antihistaminic activity resides chiefly in the *l*-isomer and guinea pig assays show it to be four times more active than *d*-chlorpheniramine maleate. Activity in humans appears to be in keeping with that indicated in the animal tests. The drug was reported by Ciba chemists at the ACS meeting at Cleveland. See C.F. Huebner, *et al.*, ACS, Div. Med. Chem. Abstr., p. 33N (April 13, 1960). Clin.

Dioctyl potassium sulfosuccinate, see combn. in Rectalad miniature enema (Wampole), p. 390.

Dioctyl sodium sulfosuccinate, see combns. in Beldox caps. (Sanford), p. 176; in Doxisul tabs. (Crestmed), p. 51.

Diperodon HCl, see combn. in Tyler otic drops (Tyler), p. 326.

Dipralon Forte Tablets (Arnar-Stone). Per tab. (pink, coated): dipyrone 125 mg., salicylamide 125 mg., N-acetyl-*p*-aminophenol 125 mg., vit. C 50 mg. For use in arthritis and allied disorders. *Dosage:* Initially, 1–2 tabs. t.i.d., with reduced dosage as needed for maintenance. Dipyrone is a pyrazolone derivative, some of which may cause blood dyscrasias; if symptoms of throat irritation or swelling, skin eruption, dizziness, or chills occur, withdraw Dipralon and have a white cell count made. During prolonged therapy have periodic blood analyses run. Bottles, 100 and 1000. ℞.

Dipyrone, see combns. in Dipralon Forte tabs. (Arnar-Stone), p. 380; in Fevonil liq. (Carrtone), p. 382.

Domerine Medicated Shampoo (Dome) is a soapless liq. containing salicylic acid 2%, allantoin 0.2%, bithionol 1% in a vehicle with surfactants and protein condensate. For scalp seborrhea (dandruff) and soapless antibacterial cleanser. *Application:* Massage into scalp then rinse with water. Bottle, 4 oz. O-t-c.

Doncarb tabs. (Crestmed), p. 51.

Dondril tabs. (Whitehall), p. 239.

Dorase (cellulase), see combn. in Kanulase tabs. (Smith-Dorsey), p. 383.

Dornwal tabs. (Maltbie), p. 312.

Doxisul tabs. (Crestmed), p. 51.

Dramcillin-S for Oral Liquid (White). Powder in 30-cc. (0.75 Gm.) and 60-cc. (1.5 Gm.) bottles when mixed with water makes liq. containing per 5 cc.: potassium phenethicillin 125 mg. (200,000 u.). Prepared soln. retains potency for 2 wks. if refrigerated. For respiratory tract infections; skin, soft tissue, and surgical infections; urinary tract infections; scarlet fever and puerperal sepsis. *Dosage:* Orally, 1–2 tsps. t.i.d. Powder in 30-cc. and 60-cc. bottles. ℞.

Duohorm-F inj. (Canfield), p. 239.

Duohorm-M inj. (Canfield), p. 239.

Dura-Tab S.M. Aminophylline tabs. (Wynn), p. 314.

Dyphylline, see combns. in Asophyllin tabs. (Crystal), p. 176; in Pentorock tabs. (Crystal), p. 182.

Dyphylline (Neothylline), see combn. in Min-io-phen tabs. (Paul Maney), p. 111.

Dyprin caps. (Lincoln), p. 110.

Echothiophate iodide, see Phospholine iodide for soln. (Campbell), p. 112.

Ectylurea, see Levanil tabs. (Upjohn), p. 52; combn. in Cytran tabs. (Upjohn), p. 312. Also in Nostyn tabs. (Ames).

Electrolyte mixture, see combn. in Ionosol B w/invert sugar (Abbott), p. 180.

Elipten tabs. (Ciba), p. 239.

Emacaine (Davis & Sly), p. 178.

Endotussin pediatric syr. (Endo), p. 239.

Enisyl w/Iron Pediatric Tablets (Luke). Per chewable tab.: L-lysine HCl 100 mg., ferrous fumarate 50 mg., vit. B_6 0.5 mg. Indication and dosage as for Enisyl w/iron tabs. Bottles of 100. O-t-c.

Enisyl w/Iron tabs. (Luke), p. 314.

Enzactin (Ayerst), see triacetin NND, p. 55.

Ephedrine HCl, see combn. in Quadrinal susp. (Knoll), p. 184.

Ephedrine lactate, see combn. in Gluco-Fedrin (Parke, Davis), p. 242.

Ephedrine sulfate, see combn. in Prednisophine tabs. (Vitamix), p. 248.

Ephoxamine tabs. (Spencer), p. 110.

***l*-Epinephrine HCl,** see Glaucon soln. (Haug), p. 51.

Ergotamine tartrate see Medihaler-ergotamine (Riker), p. 52.

Erythrocin-I.M. in Abboject disposable syringe, (Abbott), p. 110.

Erythrol tetranitrate, see Cardilate tabs. (Burroughs Wellcome), p. 236.

Erythromycin ethyl succinate, see Erythrocin-I.M. (Abbott), p. 110; and combn. in Powdalator-ES unit (Abbott), p. 53.

PHARMACIST: New Dianabol is being introduced to physicians with the advertisement you see below. Dianabol builds lean tissue in debilitated patients... builds important new business for you. Order today!

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By aiding the deposition, synthesis, and utilization of protein, Dianabol affords these benefits in the underweight elderly patients with or without serious disease and in patients who are chronically ill or convalescent:

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- Speeds healing of wounds; hastens postoperative recovery and convalescence from a variety of diseases.
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- Improves general physical status; helps to revive a sense of well-being.

Economical, convenient to administer, and almost without virilizing effects, Dianabol overcomes the disadvantages that have restricted use of tissue-building compounds in the past. Older patients, whose funds are often limited, will particularly welcome the low cost of Dianabol therapy.

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New, orally effective tissue builder

Converts protein to working weight in wasting or debilitated patients

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2/27090

Erythromycin propionate NND, p. 51.
Eserine salicylate ophth. soln., see Minims ophth. drops (Barnes-Hind), p. 244.
Eskatrol Spansule caps. (SK&F), p. 51.

Estro-Serp Tablets (Ortega). Per tab.: ethinyl estradiol 0.01 mg., reserpine 0.1 mg. For use in psychic and somatic menopausal symptoms. *Dosage:* 1–2 tabs. t.i.d. for 1 wk. then maintain on 1–2 tabs. daily. Bottles of 100 and 500. ℞.

Estrogenic substances, natural, see combn. in Duohorm-F inj. (Canfield), p. 239.
Estrogens, conjugated, see Femogen tabs. (Testagar), p. 239.
Ethaverine HCl, see combn. in Pertol tabs. (Ulmer), p. 182.
Ethaverine HCl inj. (Bruce Parenterals), p. 314.
Ethinyl estradiol, see combns.in Analeptone-anabolic tabs. (Reed & Carnrick), p. 48; in Basigets ultima tabs. (Kendall), p. 176; in Estro-Serp tabs. (Ortega), p. 382; in Ger-amino tabs. (Chicago), p. 51; in Gevitone tabs. (Crestmed), p. 51; in Nicozol complex liq. (Drug Specialties), p. 181; in Predictabs tabs. (Drug Specialties), p. 112; in Progestroid tabs. (Brown Pharm.), p. 388.
Ethoxzolamide, see combn. in Cytran tabs. (Upjohn), p. 312.
Ethyl aminobenzoate, see combn. in Pyrojel w/tyrothricin emulsion (Bruce Parenterals), p. 113.
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Feostim tabs. (Lloyd, D&W), p. 239.
Ferrated ox bile, see combn. in Therabile tabs. (Ascher), p. 185.
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Ferrocholinate NND, p. 178.
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Ferrous fumarate w/B_{12}, see combn. in Pantrinsic-C (Brown Pharm.), p. 386.
Ferrous fumarate w/B-complex vitamins, see Stuartinic tabs. (Stuart), p. 250.
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Ferrous gluconate, see combn. in Vita-12 fortified tabs. (Crystal), p. 186.
Ferrous sulfate, see combns. in Coferic tabs. (Crestmed), p. 50; in Ferromalt tabs. (Borcherdt), p. 239.
Fervenulin, clin., p. 51.

Fevonil Liquid (Carrtone). Per 5 cc. (flavored): dipyrone 0.5 Gm. (phenyldimethylpyrazolone - methylaminomethanesulfonate sodium). Analgesic and antipyretic. If skin eruption, dizziness or chill occurs, stop medication. *Dosage:* Every 4–6 hrs.; for fever, 2 tsps.; for pain, 2–5 tsps.; for fever and pain in children, 1 tsp., and infants ½–1 tsp. Avoid continued use for long periods. Do not use in treatment of dysmenorrhea or for any other purpose at or near menstrual period. Cautions are based upon relation of dipyrone to aminopyrine which has been reported to produce granulocytopenia. Pints and gals. ℞.

Firon (G.A. Beard), see ferrous fumarate NND, p. 178.
Fi-Test kit (Hyland), p. 110.
Florinef-S ophth. soln. (Squibb), p. 51.
Fludrocortisone hemisuccinate, see combn. in Florinef-S ophth. soln. (Squibb), p. 51.
Fluorescein isothiocyanate, p.51.
Fluorescein sodium ophth. soln., see Minims ophth. drops (Barnes-Hind), p. 244.

Fluorometholone NND; Oxylone (Upjohn), 9α-fluoro-11β, 17α-dihydroxy-6α - methyl - 1,4 - pregnadiene - 3,20 - dione. A potent glucocorticoid, used exclusively for its anti-inflammatory effects on the skin. Approximately 40 times as potent as hydrocortisone when applied topically but both are equipotent when given orally. See *J. Am. Med. Assn.*, **171,** 1692 (Nov. 21, 1959).

Fluothane (Ayerst), see halothane NND, p. 51.
Fluphenazine di-HCl, see Prolixin elix. (Squibb), p. 184; Prolixin tabs. (Squibb), p. 53.
Fortespan Spansule caps. (SK&F), p. 51.
Fostril and Fostril HC lotions (Westwood), p. 178.
Fructose, see Frutabs (Pfanstiehl), p. 51.
Frutabs (Pfanstiehl), p. 51.
Fulvicin tabs. (Schering), p. 242.
Fumiron (Standex), see ferrous fumarate NND, p. 178.
Fungacetin (G.F. Harvey), see triacetin NND, p. 55.
Fugizone (Squibb), see amphotericin B NND, p. 308.
Furacin-HC cream (Eaton), p. 242.
Gastrografin (Squibb), see methylglucamine diatrizoate NND, p. 111.
Ger-amino tabs. (Chicago), p. 51.
Gericaine H_3 inj. (C.F. Kirk), p. 178.
Geriliquid (Lakeside), p. 178.
Gevitone tabs. (Crestmed), p. 51.
Ginger oleoresin, see combn. in Therabile tabs. (Ascher), p. 185.
Glaucon soln. (Haug), p. 51.
Gluco-Fedrin soln. (Parke, Davis), p. 242.
Glutamic acid, see combn. in Android tabs. (Brown Pharm.), p. 374.
Glutamic acid HCl, see combns. in Calsans tabs. (Podiatrex), p. 109; in Kanulase tabs. (Smith-Dorsey), p. 383; in Senilavite (D.E. Finley), p. 184.
Glycerin, see combn. in Rectalad miniature enema (Wampole), p. 390.
Glyceryl guaiacolate, see combns. in Guaiahist TT tabs. (Columbus), p. 51; in Hasanone #2 syrup (Haskell), p. 178; in Nolamine expectorant syrup (G.W. Carnrick), p. 53; in Pedical pediatric liq. (Lemmon), p. 182; in Tussahist syr. (Finley), p. 186.
Glyceryl guaiacolsulfonate, see combn. in Res-o-phyllin caps. (Sanford), p. 390.
Glycine, see combns. in Geriliquid (Lakeside), p. 178; in Medalac tabs. (Medco), p. 384; in Nicotron tabs. (Haug), p. 318.
Gonadotropic hormone, see combns. in Duohorm-F inj. and Duohorm-M inj. (Canfield), p. 239.
Gramicidin, see combns. in Bio-Tosmosan HC eardrops (Doho), p. 236; in Kenalog-S cream and oint. (Squibb), p. 180; in Phenyl-Drane nasal spray & suction (Mahon), p. 182.
Griseofulvin, p. 51, see Fulvicin tabs. (Schering), p. 242.
Griseofulvin tabs. (Ayerst), see griseofulvin, p. 51.
Guaiahist TT tabs. (Columbus), p. 51.
Guar cellupectinoid, see combn. in Balvis tabs. (Carnrick), p. 309.
Halothane NND, p. 51.
Harmonyl (Abbott), see combn. in Oreticyl tabs. (Abbott), p. 111.
Hasanone #2 syr. (Haskell), p. 178.
Heb-cort, Heb-cort N, Heb-cort V oints. (Barnes-Hind), p. 242.
Hemoton (Carrtone), see ferrous fumarate NND, p. 178.
Heparin potassium NND, p. 180.

Heparin sodium inj. is supplied by Brown Pharm. in concns. of 100 and 200 mg./cc. in 4-cc. and 10-cc. vials and 400 mg./cc. in 4-cc. vials. ℞.

Heptuna Plus caps. (Roerig), p. 315.
Hexachlorophene, see combns. in Acnestat creme (Dale), p. 235; in Fostril and Fostril HC lots. (Westwood), 178; in pHisoac cream (Winthrop), p. 182; in Sebical cream (Reed & Carnrick), p. 248.
Histabar plus and plain Medsules (Medco), p. 242. [Erroneously assigned to Borcherdt.]
Homatropine HBr ophth. soln., see Minims ophth. drops (Barnes-Hind), p. 244.
Homatropine methylbromide, see combns. in Endotussin pediatric syr. (Endo), p. 239; in Therabile tabs. (Ascher), p. 185.
Homvite elixir (Carrtone), p. 180.
Honey-Cillin 400 for susp. (Physicians), p. 110.
Humatin (Parke, Davis), clin., p. 51.
Humatin Kapseals (Parke, Davis). Per cap. (opaque, yellow w/brown band):

250 mg. paromomycin (as sulfate). The antibiotic is useful in patients with intestinal amebiasis and certain enteric infections of bacterial etiology. *Dosage:* Orally, 1–6 caps. 3–4 times daily; children, 22–100 mg./Kg. body weight daily in divided doses. Bottles of 16. ℞.

Hyaluronidase for inj. (Bruce Parenterals), p. 315.

Hyburquin cream (Texas Pharmacal), p. 51.

Hydeltrasol (Merck S&D), see prednisolone phosphate sodium NND, p. 112.

Hydralazine HCl, see combn. in Serap-es tabs. (Ciba), p. 248.

Hydrochlorothiazide, see combns. in Oreticyl tabs. (Abbott), p. 111; in Serap-es tabs. (Ciba), p. 248; in Serpasil-Esidrix tabs. (Ciba), p. 248.

Hydrocortisone, see Texacort lot. (Texas Pharmacal), p. 185; see combns. in Cortar-quin creme and lot. (Dome), p. 50; in Fostril HC lot. (Westwood), p. 178; in Hyburquin cream (Texas Pharmacal), p. 51; in pantho-Foam (U.S. Vit. & Pharm.), p. 53; in Rhinalgan HC nasal spray (Doho), p. 184; in Synta and Synta w/hydrocortisone oints. (Dumas-Wilson), p. 185; in Tyler otic drops (Tyler), p. 326.

Hydrocortisone acetate, see Rectal Medicone-HC suppos. (Medicone), p. 390; combn. in Furacin-HC cream (Eaton), p. 242; in Scinocort inj. (Testagar), p. 324.

Hydrocortisone alcohol, see Heb-cort, Heb-cort N and Heb-cort V oints. (Barnes-Hind), p. 242; Supertah H-C oint. (Tailby-Nason), p. 391; combns. in Acnestat creme (Dale), p. 235; in Bio-Tosmosan HC eardrops (Doho), p. 236; in Ixol ungacreme (Dale), p. 242; in Puristat creme (Dale), p. 248.

Hydrocortisone diethylaminoacetate HCl, see combn. in Podiacort oint. (Podiatrex), p. 322.

Hydrocortisone - 21 - phosphate disodium salt, see combn. in Neo-Corphos ophth. soln. (Crookes-Barnes), p. 181.

Hydroquin Compound Ointment (Medco) contains benzoyl peroxide 10% and chlor-hydroxy-quinolin 0.5%. For skin and scalp infections. *Application:* Locally to affected area. Benzoyl peroxide will bleach colored garments. Jars of 1 oz. and 1 lb. O-t-c.

Hydroxyzine HCl, reduces gastric acidity, p. 110. Also Atarax parenteral soln. (Roerig), p. 48; in dental practice, p. 52.

Hyoscine HBr, see combns. in Almezyme caps. (Meyer), p. 48; in Belakoids TT tabs., (Columbus), p. 309; in Beldox caps. (Sanford), p. 176; in Doncarb tabs. (Crestmed), p. 51; in San-naus tabs. (Lemmon), p. 390; in Tritranquil tabs. (Meyer), p. 55.

Hyoscyamine HBr, see combn. in Almezyme caps. (Meyer), p. 48.

Hyoscyamine sulfate, see combns. in Belakoids TT tabs. (Columbus), p. 309; in Beldox caps. (Sanford), p. 176; in Doncarb tabs. (Crestmed), p. 51; in Sedamasal caps. (Finley), p. 184.

Ichthammol, see combn. in Ixol ungacreme (Dale), p. 242.

Ilosone lauryl sulfate sulfa for oral susp. (Lilly), p. 110.

Imipramine HCl, see Tofranil tabs. (Geigy), p. 185.

Iodine reactions, p. 52.

Iodochlorhydroxyquin, see combns. in Heb-cort V oint. (Barnes-Hind), p. 242; in Hyburquin cream (Texas Pharmacal), p. 51.

Imferon inj. (Lakeside), the iron-dextran complex preparation, has been withdrawn. Retail pharmacists can ship stocks to wholesalers (not to Lakeside) for credit.

Invert sugar, see combn. in Ionosol B w/invert sugar (Abbott), p. 180.

Ionosol B w/invert sugar 10% inj. (Abbot), p. 180.

Iron choline citrate chelate, see ferrocholinate NND, p. 178.

Iron-dextran I.M. inj., p. 315.

Iron gluconate, see combn. in Belfer tabs. (Durst), p. 49.

***d*-Isoephedrine HCl,** see combn. in Hasanone #2 syrup (Haskell), p. 178; in Isogesic tabs. (Arnar-Stone), p. 242.

Isogesic tabs. (Arnar-Stone), p. 242.

Isopropamide iodide, see Ornade Spansule caps. (SK&F), p. 181.

Isoproterenol, see combn. in Asophyllin tabs. (Crystal), p. 176.

Isordil tabs. (Ives-Cameron), p. 52.

Isosorbide dinitrate, see Isordil tabs. (Ives-Cameron), p. 52.

Ixol ungacreme (Dale), p. 242.

Kanulase Tablets (Smith-Dorsey). Per tab.: Dorase (cellulase) 320 u., pancreatin 500 mg., ox bile ext. 100 mg., pepsin 150 mg., glutamic acid HCl 200 mg. For relief of discomforts due to excessive gas and fermentive dyspepsia. *Dosage:* 1–2 tabs. after meals. Bottles of 50. O-t-c.

Kelatrate Syrup (Tutag). Per 5 cc.: vit. B_1 1.5 mg., B_2 1.2 mg., B_{12} 6 mcg., niacinamide 10 mg., panthenol 10 mg., with betaine citrate chelates of Fe (ous) 30 mg., Co 0.1 mg., Mn 1 mg., Zn 1.25 mg., Mg 6 mg. in flavored sorbitol vehicle. For treatment of iron deficiency anemia, particularly in patients who cannot take nonchelated (ferruginous) iron preparations; also as appetite stimulant. *Dosage:* Adults and children over 6 yrs., 1 tsp. t.i.d.; children 3–6 yrs., half dosage; under 3 yrs., only on advice of physician. May be diluted in aq. liqs. Pint bottles. O-t-c.

Kenalog in Orabase (Squibb). Per Gm.: triamcinolone acetonide 1 mg. in Orabase dental paste (gelatin, pectin, carboxymethylcellulose in Plastibase). For treatment of acute and chronic lesions of oral mucosa; in denture stomatitis, traumatic lesions and denture sore spots. *Application:* Cover lesion with a thin coat 2–3 times daily. Tubes, 5 Gm. ℞.

Kenalog parenteral susp. (Squibb), p. 180.

Kenalog-S cream and oint. (Squibb), p. 180.

Kenalog spray (Squibb), p. 180.

K-Plex syrup (Walker), p. 52.

K-Syrup (Walker), new name for K-Plex syr. (Walker), p. 52.

Krebiozen, p. 52.

Lacril artificial tears (Allergan), p. 244.

Lactobacillus acidophilus, see combn. in Bacid caps. (U.S. Vit. & Pharm.), p. 176.

Latex-thyroglobulin reagent, see TA-test kit (Hyland), p. 325.

Lavabo tabs. (Superior), p. 110.

LB 12, ion-exchange vit. B_{12} in combn. in Cynal tabs. (Lloyd Bros.), p. 238.

Lerja expectorant, syr. and tabs. (Burns), p. 244.

Levanil tabs. (Upjohn), p. 52.

Librium caps. (Roche), p. 244, are now supplied in 5-mg. in addition to the 10-mg. caps. Bottles of 50 and 500. ℞.

Lidocaine, see combn. in Velacycline i.m. inj. (Squibb), p. 186.

Lipomul I.V. (Upjohn), see cottonseed oil emulsion NND, p. 50.

Lipo-nicin Tablets (Brown Pharm.). Per tab.: nicotinic acid 250 mg., niacinamide 150 mg., vit. B_1 25 mg., B_2 2 mg., B_6 3 mg., C 100 mg. Vasodilator combn. in treatment of hypercholesteremia, cerebral sclerosis, loss of memory, senile depression, leg cramps, cold feet, claudication, dizziness, tinnitus. *Dosage:* 1–2 tabs. t.i.d. Bottles of 100 and 500. ℞.

Liqui-cee (U.S. Standard), p. 180.

Lithitrol w/pyridoxine tabs. (Columbus), p. 315.

Liver, desiccated, see combn. in Mucoplex tabs. (Stuart), p. 181.

Liver inj., see combn. in Thi-li-fer forte inj. (Kirk), p. 185.

Liver soln. w/Fe and vits., see combn. in Tavilen plus liq. (Table Rock), p. 325.

Lixocol elix. (Lannett), p. 244.

Lobelia tincture, see combn. in Bromul syr. (Haug), p. 310.

Loupred tabs. (Louisons), p. 110.

Lycol Elixir (Lannett). Per tbsp.: aminoacetic acid 1.8 Gm., L-lysine 100 mg., in wine base. For anorexia, fatigue, muscular weakness, and as amino acid supplement. *Dosage:* 1 tbsp. t.i.d. before meals. Pints. O-t-c.

L-Lysine, see combns. in Enisyl w/iron tabs. and pediatric tabs. (Luke), p. 314; in Lixocol elix. (Lannett), p. 244; in Lycol elix. (Lannett), p. 383.

L-Lysine HCl, see combns. in Ger-amino tabs. (Chicago), p. 51; in Pan-lysine

drops, tabs., tonic (Brown Pharm.), p. 386.

Madribon (Roche), see sulfadimethoxine NND, p. 391; — tabs. (Roche), p. 180.

Madriqid (Roche), see sulfadimethoxine NND, p. 391.

Magnesium ascorbate, oxide, aminobenzoate, and gluconate, see combn. in Cardenz tabs. (Miller), p. 176.

Magnesium oxide, see combn. in Balvis tabs. (Carnrick), p. 309.

Magnesium trisilicate, see combn. in Balvis tabs. (Carnrick), p. 309.

Malglyn compound magma (Brayten), p. 180.

Mannomustine in leukemias, polycythemia and malignant disorders, p. 52.

Maxipen (Pfizer), clin., p. 52.

Maxipen tabs. and for oral soln. (Roerig), p. 316.

Medalac Tablets (Medco). Per tab. (flavored): glycine 0.39 Gm., calcium carbonate 0.8 Gm. For combatting all forms of hyperacidity; stops epigastric discomfort after large meals or alcohol. *Dosage:* In peptic ulcer, orally 1–2 tabs. q.i.d. between meals and at bedtime; for sour stomach, etc., $^1/_2$–1 tab. as needed. Vials of 20, bottles of 100 and 500. O-t-c.

Medatinic Tablets (Medco). Per tab. (double scored): nicotinic acid 500 mg. For reduction of elevated levels of blood cholesterol and beta-lipoprotein cholesterol. *Dosage:* 1–2 tabs. t.i.d. with or after meals. Flushing will occur in all patients, and in some cases pruritis, nausea, or urticaria. In nearly all cases the side effects subside within a week of continued therapy. Bottles of 100 and 1000. O-t-c.

Medatussin syr. (Medco), p. 316.

Medex Medsule caps. (Medco), p. 244.

Medihaler-ergotamine (Riker), p. 52.

Medroxyprogesterone acetate, see Provera tabs. (Upjohn), p. 184; combn. in Cytran tabs. (Upjohn), p. 312.

Mephenzolate methylbromide NND, p. 180.

Mephenesin, see combn. in Amril tabs. (Amfre-Grant), p. 174; in Crystodex tabs. (Crystal), p. 238; in Perivas tabs. (Amfre-Grant), p. 318; in Tritranquil tabs. (Meyer), p. 55.

Mephobarbital, see combn. in Tritranquil tabs. (Meyer), p. 55.

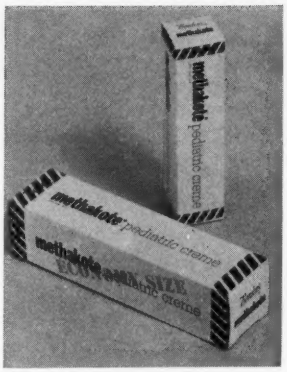
Meprospan-400 caps. (Wallace), p. 181.

Meprobamate, see Meprospan-400 caps. (Wallace), p. 181; see combns. in Appetrol tabs. (Wallace), p. 48; in Bamadex tabs. (Lederle), p. 49; in Deprol tabs. (Wallace), p. 379.

Meralluride inj., p. 316.

Metamucil instant mix (G.D. Searle), p. 316.

Methakote Pediatric Creme (Borden) contains protein hydrolysate with benzethonium chloride and talc in Dermabase. For treatment and prophylaxis in diaper rash, cradle cap, excoriations and



chafing of infant skin. Applied topically. Tubes, 1.5 and 3 oz. O-t-c.

Methaminodiazepoxide HCl, see Librium caps. (Roche), p. 244.

Methamphetamine HCl, see methamphetamine Ty-Med tabs. (Lemmon), p. 316; combns. in Obestrol caps. (Crestmed), p. 53; in Pancidin forte Panseals (Pan American), p. 112; in Reso-phyllin caps. (Sanford), p. 390; in San-naus tabs. (Lemmon), p. 390.

Methamphetamine Ty-Med tabs. (Lemmon), p. 316.

Methandrostenolone, see Dianabol tabs. (Ciba), p. 380.

Methapyrilene HCl, see combns. in Histabar plus and plain Medsules (Medco), p. 242; in Pelohist caps. (Palmedico), p. 246.

Methenamine undecylenate, clin., p. 52.

Methenamine mandelate, see combn. in Lithitrol w/pyridoxine tabs. (Columbus), p. 315.

Methionine, see Amurex caps. (Reid), p. 174; Dyprin caps. (Lincoln), p. 110; see combns. in Ger-amino tabs. (Chicago), p. 51; in Therabile tabs. (Ascher), p. 185.

Methocarbamol, see combn. in Robaxisal tabs. (Robins), p. 390.

Methsuximide NND, p. 316.

Methylandrostenediol, see combns. in Basigets ultima tabs. (Kendall), p. 176; in Ger-amino tabs. (Chicago), p. 51.

Methylcellulose, see combn. in Amphedrine-M tabs. (VanPelt & Brown), p. 235.

Methylglucamine diatrizoate NND, p. 111.

Methylphenidate HCl (Ritalin HCl, Ciba)—parenteral use, p. 244.

Methylpolysiloxane (a silicone), see Nylicon tabs. (Stuart), p. 246.

Methylprednisolone acetate NND; Depo-Medrol (Upjohn); 6α-methylprednisolone-21-acetate. Same actions and uses as prednisolone. Aq. susps. are suitable for intrasynovial and soft tissue inj. When used in this manner methylprednisolone acetate is comparable in intensity and duration of action to that of other relatively insoluble steroid compounds. See *J. Am. Med. Assn.*, **171,** 1691 (Nov. 21, 1959).

6α-Methylprednisolone-21-acetate, see methylprednisolone acetate NND, p. 384.

Methylprednisolone sodium succinate NND; Solu-Medrol (Upjohn); sodium 6α - methylprednisolone - 21 - succinate. Same actions and uses as methylprednisolone. Highly soluble and useful for parenteral inj. when prompt and intense hormonal effect is indicated. Equimolar amounts of injected methylprednisolone sodium succinate and orally administered prednisolone have the same biological activity. See *J. Am. Med. Assn.*, **171,** 1692 (Nov. 21, 1959).

Methyltestosterone, see combns. in Analeptone-anabolic tabs. (Reed & Carnrick), p. 48; in Android tabs. (Brown Pharm.), p. 374; in Andro-Wolfia tabs. (Ortega), p. 376; in Gevitone tabs. (Crestmed), p. 51; in Nicozol complex liq. (Drug Specialties), p. 181.

Metrecal (Mead Johnson), p. 111.

Milton antiseptic soln. (Walker), p. 111.

Miltown, see combn. in Appetrol tabs. (Wallace), p. 48.

Minims ophth. drops (Barnes-Hind), p. 244.

Min-io-phin tabs. (Paul Maney), p. 111.

Miradon tabs. (Schering), p. 244.

Modumate inj. (Abbott), p. 181.

Modutrol tabs. (Reed & Carnrick), p. 53.

Monosyl tabs. (Arcum), p. 111.

Motilyn inj. (Abbott), p. 246.

Mucoplex tabs. (Stuart), p. 181.

Murel-S.A. and **Murel** w/phenobarbital-S.A. (Ayerst), p. 111.

Mydriacyl ophth. soln. (Alcon), p. 316.

Mylase-100 (Wallerstein), see combns. in Almezyme caps. (Meyer), p. 48; in Almezyme liq. (Meyer), p. 174.

Mylicon tabs. (Stuart), p. 246.

Mysoline Tablets (Ayerst) are available as 50 mg. primidone/tab. in bottles of 100 and 500, in addition to the 250-mg. tabs. ℞.

Mysteclin-F for aqueous drops and for syr. (Squibb), p. 181.

Nalertan Tabules (Irwin, Neisler), now in bottles of 30 as well as 100 and 500.

Napril caps. and syr. (Marion), p. 246.

Naqua tabs. (Schering), p. 316.

Naturetin tabs. (Squibb), p. 111.

Naturetin w/K tabs. (Squibb), p. 181.

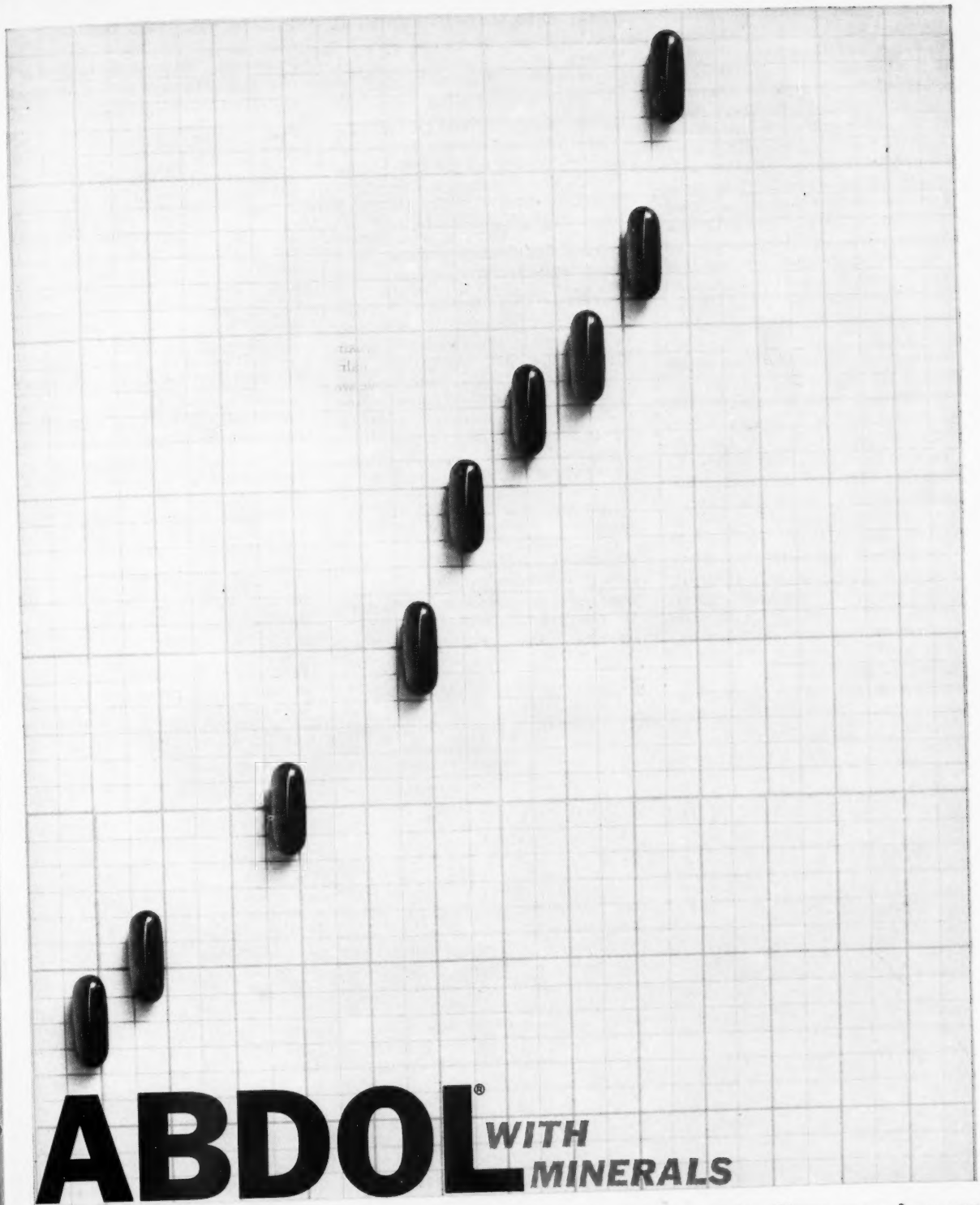
Neo-Aristoderm foam (Lederle), p. 181.

Neo-Corphos ophth. soln. (Crookes-Barnes), p. 181.

Neo-Mantle Creme and Lotion (Dome). Per Gm. of each: neomycin sulfate 5 mg. in Acid Mantle vehicle. For pustular skin diseases. *Application:* Topically, twice daily, after soaking and gentle removal of crusts. Cream in $^1/_2$-oz. tubes; lot. in 2-oz. bottles. O-t-c.

Neomycin, see combns. in Kenalog-S cream and oint. (Squibb), p. 181; in Podiacort oint. (Podiatrex), p. 322.

Neomycin citrate, see combn, in Cyclobar ophth. gel (Schieffelin), p. 50.



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Neomycin sulfate, see Neo-Mantle creme and lot. (Dome), p. 384; combns. in Bio-Tosmosan HC eardrops (Doho), p. 236; in Heb-cort N oint. (Barnes-Hind), p. 242; in Neo-Aristoderm foam (Lederle), p. 181; in Neo-Corphos ophth. soln. (Cookes-Barnes), p. 181; in Phenyl-Drane nasal spray & suction (Mahon), p. 182; in Scinocort inj. (Testagar), 324; in smallpox vaccine, avianized (Lederle), p. 54; in Surgamycin spray oint. (Am. Cyanamid), p. 55; in Tyler otic drops (Tyler), p. 326.

Neopavrin w/phenobarbital tabs. and elix. (Savage), p. 246.

Neopavrin-A tabs. (Savage), p. 246.

Neutrapen (SchenLabs), see penicillinase NND, p. 182.

Niacin, see combn. in Geriliquid (Lakeside), p. 178.

Niacinamide w/nicotinic acid and vits. B_1, B_2, B_6, and C in Lipo-nicin tabs. (Brown Pharm.), p. 383.

Niatherm tabs. (Podiatrex), p. 111.

Nicotinic acid, see Medatinic tabs. (Medco), p. 384; combns. in Arterine tabs. and elix. (Canfield), p. 309; in Nicotrin tabs. (Haug), p. 318; in Nicozol complex liq. (Drug Specialties), p. 181; in Pentorock tabs. (Crystal), p. 182, in Zolger tabs. (Superior), p. 186.

Nicotinic acid w/amide and vits. B_1, B_2, B_6, and C in Lipo-nicin tabs. (Brown Pharm.), p. 383.

Nicotinyl alcohol, see beta-pyridyl carbinol, p. 176.

Nicotron tabs. (Haug), p. 318.

Nicozol complex liq. (Drug Specialties), p. 181.

Nitrofurazone, see combn. in Furacin-HC cream (Eaton), p. 242.

Nitromersol, see Butyn Metaphen dental oint. (Abbott), p. 49.

Nolamine expectorant syr. (G. W. Carnrick), p. 53.

Normacap tabs. (Podiatrex), p. 112.

Noscaphen wafers (Bruce Parenterals), p. 111.

Noscapine, see combn. in Noscaphen wafers (Bruce Parenterals), p. 111.

Novahistine Singlet tabs. (Pitman-Moore), p. 111.

Obestrol caps. (Crestmed), p. 53.

Obron improved caps. (Roerig), p. 111.

O.H.B. tabs. (Beutlich), p. 246.

Orabase (Squibb), see Kenalog in Orabase (Squibb), p. 383.

Orabase Emollient Paste (Squibb) is a dental protective paste of gelatin, pectin and carboxymethylcellulose in Plastibase. It develops its adherent properties on contact with moisture at the wet areas of the mouth and gums. It is a compatible vehicle for many dental drugs used for local treatment. Tubes, 5 Gm. O-t-c.

Oretic (Abbott), see combn. in Oreticyl tabs. (Abbott), p. 111.

Oreticyl 25, 50, and forte tabs. (Abbott), p. 111.

Ornade Spansule caps. (SK&F), p. 181.

Orphenadrine HCl, see combn. in Delenar tabs. (Schering), p. 238.

Os-Cal, Os-feo-Vim and Os-Vim tabs. (Marion) for nutritional supplementation have new coating and are 25% smaller. The Os-Vim formula was changed on May 1 by deletion of Co, Mo and F from the vitamin-mineral combn.

Ostensin tabs. (Wyeth), p. 53.

Oxaine susp. (Wyeth), p. 246.

Oxanamide NND; Quiactin (Merrell); 2-ethyl-3-propylglycidamide. Resembles meprobamate in its CNS action, producing a calming effect which is most productive when the predominant symptom is anxiety or tension regardless of the underlying cause or clinical diagnosis. Its use in psychotic patients may permit a reduction in the frequency of electroshock therapy and may decrease patient's quarrelsomeness and irritability. See *J. Am. Med. Assn.*, **171,** 1693 (Nov. 21, 1959).

Ox bile ext., see combn. in Kanulase tabs. (Smith-Dorsey), p. 383.

Oxethazine, see combn. in Oxaine susp. (Wyeth), p. 246.

Oxylone (Upjohn), see fluorometholone NND, p. 382.

Palcillin Injection (Phila. Ampoule). Per 2 cc.: procaine penicillin G 400,000 u., streptomycin sulfate 0.5 Gm. For systematic control of infections due to susceptible organisms, including acute gonorrhea; and prophylactically in surgery and certain mixed bacterial infections. *Dosage:* i.m., 2 cc. once or twice daily. Multiple-dose 10-cc. vials. ℞.

Panac Tablets (Brewer). Per tab. (enteric coated): aspirin 325 mg., vit. C 15 mg., calcium pantothenate 1 mg. For treatment of rheumatoid arthritis, and in reduction or withdrawal of steroids from patients on steroid therapy. *Dosage:* For severe attacks, 2 tabs. 4–5 times daily; maintain on 5–6 tabs. daily in divided doses. In corticosteroid withdrawal, reduce oral steroid dosage by 6–12 mg. of cortisone or 1–2.5 mg. prednisone every 10 days; give 4 Panac tabs. daily with first decrease of steroid dosage and increase Panac dosage by 2 tabs. for each subsequent decrease of steroids. Occasionally patients may have increased pain and swelling after each reduction, but this generally disappears after 2–3 days. Even severe cases can usually be supported on 10–12 tabs. daily without steroids. Adjust dosage. Bottles of 100. O-t-c.

Palfium, p. 112.

Palohist caps. (Palmedico), p. 246.

Pancidin forte Panseals (Pan American), p. 112.

Pancidin tabs. (Pan American), p. 112.

Pancreatin, see combns., in Kanulase tabs. (Smith-Dorsey), p. 383; in Therabile tabs. (Ascher), p. 185.

Pan - lysine Drops, Tablets, Tonic (Brown Pharm.). Per tab., 2 cc. drops, 5 cc. tonic: L-lysine HCl 100 mg., w/B-complex vitamins and vit. A, and only in the tab. vit. C. As aid in protein nutrition and appetite stimulation. *Dosage:* Orally, with morning and evening meals, 2 tabs. daily; tonic, 1–2 tsps. daily; drops in infants and children, 1–2 cc. daily. Drops, 60-cc. dropper bottle; tabs., bottles of 60 and 500; tonic, 6-oz. bottles. O-t-c.

Panrexin TP Panseals (Pan American), p. 112.

Panthenol, see pantothenylol, p. 318.

Pantho-Foam aerosol (U.S. Vit. & Pharm.), p. 53; 1-oz., p. 246.

Panthoject soln. (U.S. Vit. & Pharm.), p. 182.

Pantothenylol, see Motilyn inj. (Abbott), p. 246; see combn. in Pantho-Foam (U.S. Vit. & Pharm.), p. 53.

Pantrinsic Tablets (Brown Pharm.). Per tab.: ferrous fumarate 200 mg. For simple iron deficiencies. *Dosage:* 2 tabs. daily. Bottles of 100. O-t-c.

Pantrinsic-C Tablets (Brown Pharm.). Per tab. (round, pink, coated): ferrous fumarate 200 mg., hesperidin 250 mg., vit. B_1 5 mg., B_{12} 2 mcg., stomach w/IF 100 mg., C 250 mg., liver 200 mg., cobalt chloride 15 mg., folic acid 0.1 mg. For iron deficiency and pernicious anemias associated with blood loss, malnutrition, pregnancy, etc. *Dosage:* 2 tabs. daily, after breakfast. Bottles of 100 and 500. O-t-c.

Pantrinsic PN Capsules (Brown Pharm.). Per cap.: ferrous fumarate 100 mg., calcium lactate 250 mg., vit. A 2500 u., B_1 3 mg., B_2 1.5 mg., B_6 0.1 mg., B_{12} 5 mcg., stomach IF 50 mg., C 100 mg., aluminum hydroxide 50 mg., with other nutritional supplements. As prenatal dietary supplement. *Dosage:* 1–3 caps. daily. Bottles of 100 and 250. O-t-c.

Panwarfin tabs. (Abbott), p. 246.

Paromomycin, see Humatin Kapseals (Parke, Davis), p. 382.

Pectinates, citrus, see combn. in Normacap tabs. (Podiatrex), p. 111.

Pedicol pediatric liq. (Lemmon), p. 182.

Pedisal pediatric susp. (Lemmon), p. 182.

Penicillin G, see Pentids 400 for syrup (Squibb), p. 53; combn. in Strep-Dicrystin inj. (Squibb), p. 54.

Penicillin G potassium, see Honey-Cillin 400 for susp. (Physicians), p. 110; combn. in Pentid-sulfas for syr. (Squibb), p. 318.

Pencillin V potassium, see Pen-Vee K liq. (Wyeth), p. 112.

Penicillin, α-phenoxyethyl, potassium, see potassium phenethicillin.

Penicillin-streptomycin Readimixed sterile aq. susp. (Upjohn) contains in each 2 cc.: crystalline procaine penicillin G 400,000 u., streptomycin (as sulfate) 0.5 Gm., with procaine HCl 2%, butylparaben 0.015%, sodium formaldehyde sulfoxylate 0.5%. For certain Gram-positive or Gram-negative infections, mixed infections, and where causative bacteria cannot be readily identified (e.g. brain abscess, mediastinitis, peritonitis). *Dosage:* i.m. only; for acute gonorrhea, 1 inj. of 2 cc.; for surgical prophylaxis etc., 1–2 injs. of 2 cc. daily. Vial, 10 cc. ℞.

Penicillin w/antihistaminic. Penicillin reactions were not reduced in frequency when the antihistaminic chlorpheniramine maleate (10 or 20 mg.) was injected i.m. along with benzathine penicillin or/and procaine penicillin with 2% aluminum monostearate in oil in 3,459 venereal disease patients. Overall penicillin reaction rate was 4.8 per 1,000. Patients given the antihistaminic showed slightly more reactions than did 1,097 controls. Patients receiving a combn. of both penicillin preparations had more reactions than those on benzathine penicillin alone. See G. W. Sciple, *et al.*, *New Engl. J. Med.*, **261,** 1123 (Nov. 26, 1959).

Penicillinase NND, p. 182.

Pentaerythritol tetranitrate, see combns. in Peritrate w/phenobarbital sustained action tabs. (Warner-Chilcott), p. 247; in Perivas tabs. (Amfre-Grant), p. 318; in Pertol tabs. (Ulmer), p. 182.

Pentids 400 for syrup (Squibb), p. 53.

Pentid-Sulfas for syr. (Squibb), p. 318.

Pentobarbital sodium as gastrointestinal antispasmodic, p. 53; see combn. in Belakoids TT tabs. (Columbus), p. 309.

Pentorock tabs. (Crystal), p. 182.

Pentritol Tempules (Armour), p. 182.

Pentylenetetrazol, see combns. in Analeptone-anabolic tabs. (Reed & Carnrick), p. 48; in Arterine tabs. and elix. (Canfield), p. 309; in Gevitone tabs. (Crestmed), p. 51; in Nicozol complex liq. (Drug Specialties), p. 181; in Pentorock tabs. (Crystal). p. 182; in Zolger tabs. (Superior), p. 114.

Pentylenetrazol w/B_1, B_{12}, and niacinamide, see Centalex elix. (Central), p. 236.

Pen-Vee K liq. (Wyeth); new strength, p. 112.

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Peridial soln. (Cutter), p. 247.

Peritrate w/phenobarbital sustained action tabs. (Warner-Chilcott), p. 247.

Perivas tabs. (Amfre-Grant), p. 318.

Perphenazine, see Trilafon suppos. (Schering), p. 55.

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Pharycidin concentrate (Purdue Frederick), p. 53.

Phenacetin, see combns. in Pancidin tabs. and Pancidin forte Panseals (Pan American), p. 112; in Sedamasal caps. (Finley), p. 182.

Phenazocine, see Prinadol inj. (SK&F), p. 113.

Phenethicillin is α-phenoxyethylpenicillin.

Phenethicillin potassium, see potassium phenethicillin.

Phenindamine tartrate, see combn. in Carrhist elix. (Carrtone); in Dondril tabs. (Whitehall), p. 239; in Nolamine expectorant syr. (G. W. Carnrick), p. 53.

Pheniramine maleate, see combn. in Histabar plus and plain Medsules (Medco), p. 242; in Lerja expectorant, tabs. and syr. (Burns), p. 244; in Synaclear tabs. (Pruvo), p. 315.

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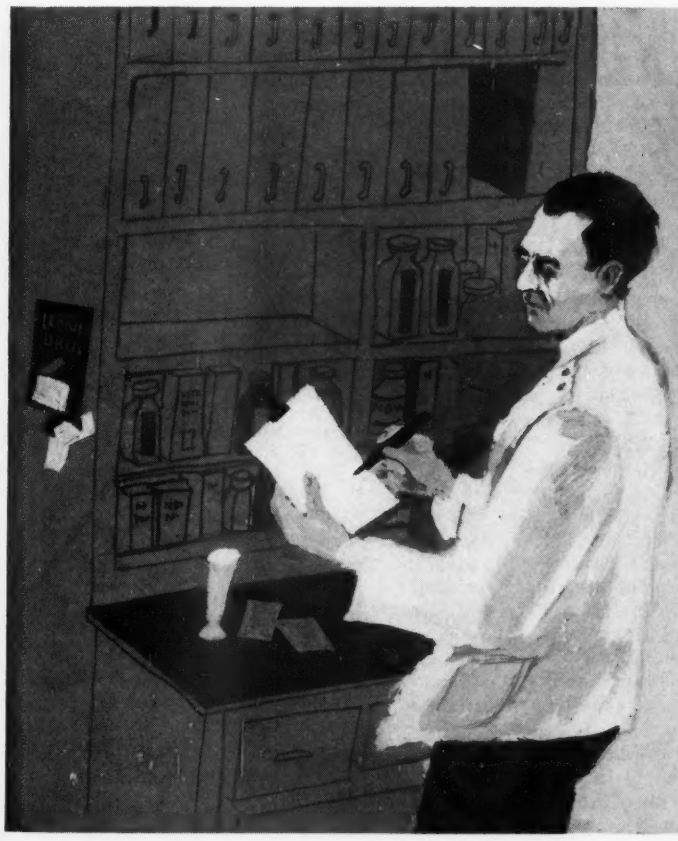
Phenobarbital, see combns. in Asophyllin tabs. (Crystal), p. 176; in Barcole tabs. (Haag), p. 51; in Bellabil tabs. (Whittier), p. 376; in Beldox caps.



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(Sanford), p. 176; in Doncarb tabs. (Crestmed), p. 57; in Min-io-phen tabs. (Paul Maney), p. 111; in Murel-S.A. and Murel w/phenobarbital-S.A. (Ayerst), p. 111; in Neopavrin w/phenobarbital tabs. and elix. (Savage), p. 246; in Obestrol caps. (Crestmed), p. 53; in Peritrate w/phenobarbital sustained action tabs. (Warner-Chilcott), p. 247; in Prednisophine tabs. (Vitamix), p. 248; in Quadrinal susp. (Knoll), p. 184; in Spasmabar Medsule caps. (Medco), p. 250.

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***o*-Phenylphenol,** see combn. in pHisoac cream (Winthrop), p. 182.

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Potassium phenethicillin (potassium α-phenoxyethyl penicillin); see Alpen tabs. and for oral soln. (Schering), p. 374; Chemipen tabs. and for syr. (Squibb), p. 236; Darcil tabs. (Wyeth), p. 379; Dramcillin-S for oral liq. (White), p. 380; Maxipen tabs. and for oral soln. (Roerig), p. 316; Syncillin for pediatric drops (Bristol), p. 325; Syncillin tabs. and for oral susp. (Bristol), p. 55; combn. in Syndecon tabs. and for oral soln. (Bristol), p. 325.

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Procaine penicillin G, see Crysticillin 600 A.S. Unimatic (Squibb), p. 238; Strep - Combiotic (Pfizer), p. 185; combns. in Palcillin inj. (Phila. Ampoule), p. 386; in Strep-Distrycillin A.S. (Squibb), p. 250.

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Prochlorperazine, see combn. in Eskatrol Spansule caps. (SK&F), p. 51.

Progestroid Tablets (Brown Pharm.). Per tab.: anhydrohydroxyprogesterone 10 mg., ethinyl estradiol 0.01 mg., thyroid ext. 10 mg., hesperidin 100 mg., vit. B_1 10 mg., C 100 mg., glutamic acid 50 mg. For prevention of habitual abortion, premenstrual tension syndrome, painful breasts, endocrine imbalance. *Dosage:* 1 tab. t.i.d. Bottles of 100 and 500. ℞.

Prolase-300 (Wallerstein), see combn. in Almezyme caps. (Meyer), p. 48; in Almezyme liq. (Meyer), p. 174.

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Psyllium hydrophilic mucilloid, see combn. in Metamucil instant mix (Searle), p. 316.
Puristat creme (Dale), p. 248.

Purivax Polio Vaccine (Merck S&D) is a highly purified, killed-virus type vaccine which, given in 0.5-cc. doses 1 month apart, produced an immune response to all 3 types of polio virus in 91% of the tested children. It contains no serologically detectable monkey kidney antigen. The 2-dose response is about the same as that achieved after the 3rd or booster dose of presently available Salk vaccine. Further trials are being conducted. Clin.

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N-(Pyrrolidinomethyl) tetracycline, see combns. in Velacycline injs. (Squibb), p. 186.
Quadrinal susp. (Knoll), p. 184.
Quelicin chloride inj. (Abbott), p. 54.
Quiactin (Merrell), see oxanamide NND, p. 386.
Quinine oxidase in serum, p. 54.

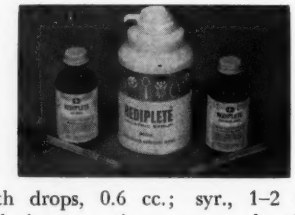
Quinolor Compound Ointment (Squibb) containing benzoyl peroxide 10% and chlorhydroxyquinoline (Quinolor) 0.5%, with menthol, methyl salicylate and eugenol in Plastibase is again available. For impetigo, sycosis barbae, acne necrotica, miliaris of scalp and epidermophytosis. *Application:* Topically on affected area after removal of crusts; repeat every 8 hrs. until eruption has healed. Watch for sensitivity; avoid eyes and tender areas. May bleach colored garments. Keep in cool place; expiration date 2 yrs. Tubes, 1 oz.; jars, 1 lb. O-t-c.

Racephedrine HCl, see combn. in Asophyllin tabs. (Crystal), p. 186; in Ephoxamine tabs. (Spencer), p. 110.
Radio-L-triiodothyronine (I-131) (Abbott), p. 113.
Rapadyne tabs. (Knoll), p. 184.
Rauwolfia serpentina, see combn. in Andro-Wolfia tabs. (Ortega), p. 376.

Rectalad Miniature Enema (Wampole). The liq. contains glycerin 80%, potassium oleate and stearate 10%, dioctyl potassium sulfosuccinate 5%. Triggers defacatory reflex for evacuation of rectum and lower sigmoid colon. *Dosage:* Rectally, 5 cc.; children 2 cc. Plastic disposable units of 2 cc. and 5 cc. O-t-c.

Rectal Medicone-HC Suppository (Medicone) has the formula of regular rectal Medicone plus 10 mg. hydrocortisone acetate per suppos. For symptomatic control of severe anorectal inflammation, pruritis and pain. *Dosage:* Rectally. Box of 12. ℞.

Rediplete ADC Drops, —Polyvitamin Drops, —Pediatric Syrup (Merck S&D). Per 0.6 cc. ADC drops: vit. A 1.5 mg., D 25 mcg., C 50 mg. Per 0.6 cc. polyvitamin drops: vit. A 1.5 mg., D 25 mcg., C 75 mg., B_1 1 mg., B_2 1 mg., B_6 1 mg., B_{12} 3 mcg., nicotinamide 10 mg. Per 5 cc. pediatric syr. (orange): vit. A 0.9 mg., D 25 mcg., C 50 mg., B_1 1.5 mg., B_2 1.5 mg., B_6 1 mg., nicotinamide 10 mg., with preservative and nitrogen propellant. Nutritional supplements for infants and young children. *Dosage:*



Both drops, 0.6 cc.; syr., 1–2 tsps. daily in proportion to age and weight. Both drops in amber bottles with plastic droppers marked at 0.3 and 0.6 cc. Syr.: 8-oz. in 12-oz. aerosol can. O-t-c.

Rela tabs. (Schering), p. 113.
Relaxin NND, p. 54.
Releasin (Warner-Chilcott), see relaxin NND, p. 54.
Renacidin powder (Guardian Chem.), p. 324.
Renografin (Squibb), see methylglucamine diatrizoate NND, p. 111.
Reserpine, see combns. in Amril tabs. (Amfre-Grant), p. 174; in Estro-Serp tabs. (Ortega), p. 382; in Ser-ap-es tabs. (Ciba), p. 248; in Serpasil-Esidrix tabs. (Ciba), p. 248.

Res-o-phyllin Capsules (Sanford). Per cap.: glyceryl guaiacolsulfonate 100 mg., methamphetamine HCl 1 mg., aminophylline 195 mg., phenylephrine HCl 12 mg., butabarbital sodium 16 mg., aluminum hydroxide-magnesium carbonate 172 mg. For symptoms of bronchial asthma and allergies of upper respiratory tract. Use cautiously in presence of heart or thyroid disease or circulatory collapse. *Dosage:* 1 cap. t.i.d. Bottles of 100. ℞.
Resorcinol, see combn. in pHisoac cream (Winthrop), p. 182.
Resorcinol monoacetate, see combns. in Acnestat creme (Dale), p. 235; in Tracne cream (Table Rock), p. 325.
Resprogen vaccine (Parke, Davis), p. 54.
Rhinalgan HC nasal spray (Doho), p. 184.
Rhulifoam Aerosol (Lederle), p. 324.
Rifomycin, clin., p. 54.
Ritalin HCl (Ciba), see methylphenidate HCl NND, p. 244.
Robaxisal Tablets (Robins). Per tab. (AHR - marked, pink and white layers): methocarbamol (Robaxin) 400 mg., aspirin 325 mg. For pain associated with or due to skeletal muscle spasm as in disorders of the back, whiplash and other traumatic injuries, myositis, pain and spasm associated with arthritis. *Dosage:* 2 tabs. q.i.d.; 3 tabs. q.i.d. may be used in severe conditions for 1–3 days in persons well able to tolerate salicylates; children, 27–33.5 mg. methocarbamol per lb. of body weight divided into 4–6 doses per day. Methocarbamol can sometimes cause lightheadedness, dizziness, and mild nausea in sensitive patients, but these reactions usually disappear on reduction of dosage. Bottles of 100 and 500. ℞.

Roenten powder (Brayten), p. 248.
Roniacol Timespan tabs. (Roche), p. 184.
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San-naus Tablets (Lemmon). Per tab. (scored, pink and blue): hyoscine HBr 0.4 mg., phenyltoloxamine dihydrogen citrate 25 mg., pyridoxine HCl 10 mg., methamphetamine HCl 1.25 mg. For

prevention and treatment of nausea and vomiting of pregnancy. *Dosage:* 1 tab. before retiring and on arising. Bottles of 100 and 1000. ℞.

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Sulfadiazine, see combns. in Ilosone lauryl sulfate sulfa for oral susp. (Lilly), p. 110; in Pentid-Sulfas for syr. (Squibb), p. 318; in Sulfa-Bon susp. (Bonar), p. 324; in Trip-Sul susp. and tabs. (Carrtone), p. 114.

Sulfadimethoxine NND; Madribon, Madriqid (Roche); N^1-(2,6-dimethoxy-4-pyrimidyl)sulfanilamide; 24,-dimethoxy-6-sulfanilamido-1,3-diazine. This sulfonamide, like sulfamethoxypyridazine, is characterized by slower renal excretion and more prolonged blood levels than most other sulfonamides. It resembles other sulfonamides in its antibacterial spectrum, side-effects, and indications for use. Madribon and Madriqid contain the same chemical drug. Madribon is supplied in 500-mg. tablets and susp. (250 mg./5 cc.); Madriqid is supplied in 125-mg. caps. (lower strength permits q.i.d. dosage). See *J. Am. Med. Assn.*, **171,** 1693 (Nov. 21, 1959).

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Supertah H-C Ointment (Tailby-Nason) contains hydrocortisone alcohol 0.5% with a coal tar fraction 1.25% in a

washable base. For allergic, seborrheic and neurodermatitis. Applied locally. Tubes, 1/2 oz. ℞.

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Synnematin B was stated to be as effective as penicillin in checking syphilis in its early stages. The report, based upon the use of the antibiotic in 2 patients, was given by A.H. Wheeler at the USPHS symposium on advances in the study of venereal diseases held April 8 at Chicago. Clin.

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Tacaryl Tablets (Mead Johnson) containing 4 mg./tab. were evaluated clinically in 39 patients for antihistaminic activity along with R-1575 (Searle) in 3-mg. tabs. and compared with isothipendyl HCl, chlorpheniramine maleate and placebo tabs. Chemically Tacaryl is 10-(1-methyl-3-pyrrolidylmethyl) phenothiazine HCl and R-1575 is N-benzhydryl-N^1-cinnamylpiperazine. Tacaryl and chlorpheniramine (Chlor-Trimeton) appeared to be equally effective closely followed by R-1575. Some patients with only mild hay fever rated the placebo (lactose or $NaHCO_3$) equally effective with the drugs tested. See H.W. Wahner and G.A. Peters, *Proc. Staff Meetings Mayo Clinic*, **35,** 161 (Mar. 30, 1960). Clin.

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Timovan Tablets (Ayerst). Per tab.: 25 mg. and 50 mg. prothipendyl HCl, chemically [4-dimethylaminopropylpyrido-(3,2β)(1,4)-benzothiazine] HCl. H_2O. Calmative for relief of anxiety and tension in ambulatory patients, particularly geriatric and adolescent. Has central effect to inhibit overstimulation of cortical and psychic areas of the brain; without drowsiness or functional impairment. Should not be used in cases of acute alcoholism or barbiturate poisoning. *Dosage:* 100–400 mg. (1–2 tabs. 3–4 times) daily, depending on age of patient and severity of symptoms. Both strengths in bottles of 100 and 1000. ℞.

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Trilamine Ty-Med Tablets (Lemmon). Per tab. (varicolored, timed-release): pyrilamine maleate 30 mg., thenylpyramine HCl 30 mg., phenyltoloxamine dihydrogen citrate 30 mg. In allergic, asthmatic, and related conditions. *Dosage:* 1 tab. every 12 hr. Bottles of 100 and 1000. ℞.

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Twix Drops and Liquid (Carrtone) are multivitamin forms for nutritional supplementation. Liq. provides 8 vits., biotin, inositol and L-lysine HCl. Liq. in 8-oz. bottles; drops in 30-cc. dropper bottle. O-t-c.

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Vita-drink Effervescent Powder (Stuart). Per 4.3 Gm. (level tsp.) of granular powder (orange, cherry, grape flavors): vit. A 5000 u., D 1000 u., C 75 mg., B_1 2 mg., B_2 2 mg., B_6 1.2 mg., B_{12} (as Ionex-12) 3 mcg., niacinamide 10 mg., calcium pantothenate 3 mg. Nutritional supplement. *Dosage:* 1 level tsp. daily, mixed with 4–6 oz. cold water. Three flavors in 4.5-oz. package. O-t-c.

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APhA Women's Auxiliary

With the approach of summer, vacation planning is well under way and we hope members of the Auxiliary are planning to spend part of their vacation at convention. Certainly we should not let any vacation-time conflict prevent us from attending APhA's meeting in August in the beautiful capital city of Washington, so aptly described in a recent article as the young queen of world capitals. Those who frequently visit Washington are probably looking forward to seeing again their favorite spot, perhaps strolling around beautiful Mount Vernon or spending a few hours at the National Art Galleries.

Our nation's capital is a wonderful place to bring young people. What boy, of any age, would not be intrigued by the opportunity to visit the FBI building and see how that department functions or spend hours and hours at the Smithsonian Institute viewing its amazing displays? And what girl would not be impressed at the Smithsonian Institute by the exhibit of dresses of the first ladies of the land? A trip through the White House is fascinating to any homemaker as is a visit to the colonial homes of yesteryear.

If you have visited Washington before, APhA's meeting will provide an opportunity for you to do those things you had to leave undone because time ran out. If it is your first trip, plan to spend an extra day or two because you will find so many, many places of interest to visit at the center of your government.

convention planning

The convention committee is doing a wonderful job of planning to avoid conflicts in the schedule of meetings of committees and general meetings for both APhA as well as the Women's Auxiliary. It will not be necessary to miss one in order to attend another.

The lighter, social side of the convention has been planned to be entertaining but not exhausting. With the air-conditioned meeting rooms and buses, the convention promises to be more enticing than home at a time when most areas are suffering from heat waves.

Try and attend this year, if you never have before, and you will see why so many come year after year.

The entertainment for the ladies is not limited to Auxiliary members but to all women who register at the convention. However, we extend a personal invitation to those who are not members of the Women's Auxiliary to join our group. Annual dues for active or associate members are $1 with Life Membership at only $25. Anyone wishing to join may do so by sending her check to Myrtle Miller (Mrs. Clifton), treasurer, 1201 First St. North, Fargo, North Dakota.

new members

Mrs. Stephen Wilson, membership chairman of Michigan, reports 20 new members from her state.

Mrs. Frances Poe, chairman of the Pharmacy Student Wives Club Committee, has an ever-increasing list of new members as well as members who have joined the Auxiliary upon their husbands' graduation. It is a pleasure to welcome these women to the Auxiliary and to the Pharmacy Student Wives Club.

The Executive Board has approved the formation of the North Dakota Agricultural College group as the newest PSWC, making a total of 13 clubs.

Mrs. Dorothy M. Cusick, President

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Vitamin E is supplied by Pfizer as *dl*-alpha tocopherol and *dl*-alpha tocopheryl acetate for use in formulation of solns. and dry preparations. Information is given in Pfizer data sheet No. 555.

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